

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

5

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 07/20/2018		2. CONTRACT NO. (If any) EP-C-16-006		6. SHIP TO: a. NAME OF CONSIGNEE CPD	
3. ORDER NO. 68HE0C18F0817		4. REQUISITION/REFERENCE NO. PR-OW-18-00214			
5. ISSUING OFFICE (Address correspondence to) CPD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD	
				c. CITY Cincinnati	e. ZIP CODE 45268
7. TO: ROBERT ERICKSON				f. SHIP VIA	
a. NAME OF CONTRACTOR ESS GROUP, INC.				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 10 HEMINGWAY DR # 2				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY RIVERSIDE		e. STATE RI	f. ZIP CODE 02915		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) <input type="checkbox"/> h. EDWOSB VETERAN-OWNED ELIGIBLE UNDER THE WOSB PROGRAM					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
a. INSPECTION Destination	b. ACCEPTANCE Destination				

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 019131986 INSERT DETAILS OF WHAT YOU NEED HERE. INDICATE THE FOLLOWING: BUYER: ACTION REQUESTED: AWARD NUMBER: Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center		\$720,676.00				17(i) GRAND TOTAL
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts		(b)(4)				
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711				

22. UNITED STATES OF AMERICA BY (Signature) 07/20/2018

ELECTRONIC SIGNATURE

23. NAME (Typed)
Sandra Stargardt-Licis
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 07/20/2018	CONTRACT NO. EP-C-16-006	ORDER NO. 68HE0C18F0817
-----------------------------	-----------------------------	----------------------------

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<p>NOTE: IF THIS TEXT IS PRINTING ON THE FORM PLEASE NAVIGATE TO E-REQUISITION, CLICK ON THE ICON BY REQGEN, SELECT FORM FILL IN AND THEN UPDATE THE HEADER TEXT. ONCE UPDATED YOU CAN DELETE THE NOTE.</p> <p>TOCOR: Shera Reems Admin Office: CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268</p> <p>Period of Performance: 07/20/2018 to 01/31/2019</p>					
0001	<p>Base Period: Award Date through January 31, 2019</p> <p>(b)(4)</p> <p>Accounting Info: 17-E4-87AR-202BL7-2505-1887RE8009-001 BFY: 17 Fund: E4 Budget Org: 87AR Program (PRC): 202BL7 Budget (BOC): 2505 DCN - Line ID: 1887RE8009-001 Funding Flag: Complete Funded: (b)(4)</p>				(b)(4)	
0002	<p>Option Period 1: February 1, 2019 through January 31, 2020</p> <p>(b)(4)</p> <p>(Option Line Item) 01/31/2019</p>				(b)(4)	
0003	<p>Option Period 2: February 1, 2020 through January 31, 2021</p> <p>(b)(4)</p> <p>(Option Line Item) 01/31/2020</p>				(b)(4)	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$720,676.00

**Performance Work Statement
NARS2 Contract
Task Order #TBD**

A. TITLE: San Juan Watershed Monitoring Program

B. EPA PERSONNEL

Task Order Contracting Officer Representative (TOCOR):

Name: Shera Reems
Office: EPA Region 8, Office of Water Protection
Address: 1595 Wynkoop Street, Denver, CO 80202-1129
Telephone: 303-312-6888
E-mail: reems.shera@epa.gov

Alternate Task Order Contracting Officer Representative (TOCOR):

Name: Forrest John
Office: EPA R6, Water Division
Address: 1445 Ross Avenue, Dallas, TX, 75202
Telephone: 214-665-8368
E-mail: john.forrest@epa.gov

C. ESTIMATED PERIOD OF PERFORMANCE

Base Period: Award Date through January 31, 2019
Option Period 1: February 1, 2019 through January 31, 2020
Option Period 2: February 1, 2020 through January 31, 2021

D. TYPE OF TASK ORDER: Cost plus Fixed Fee (CPFF)

I. BACKGROUND:

As part of the San Juan Watershed Monitoring Program, EPA, in collaboration with the jurisdictions of Arizona, Colorado, New Mexico, Utah, Navajo Nation, Southern Ute, and Ute Mountain Ute, are implementing the San Juan Watershed Long-Term Monitoring Plan. The San Juan Watershed Long-Term Monitoring Plan is designed to:

1. Implement a consistent approach to data collection and assessment of the water quality conditions in the San Juan Watershed and encompassing rivers (Animas and San Juan Rivers and Lake Powell);
2. Characterize water and sediment quality under the primary hydrologic regimes of spring runoff, summer base flow, fall monsoons, and winter low-flow conditions;
3. Share collected water quality data with the public;
4. Communicate to the public the water quality conditions in the San Juan Watershed; and
5. Guide management actions.

The candidate sites are located throughout the San Juan Watershed. EPA, in collaboration with the jurisdictions, have identified 39 monitoring locations along Cement Creek, Mineral Creek, the Animas River, the San Juan River, various tributaries and diversion canals, and the Colorado River immediately below Lake Powell. In collaboration with the jurisdictions, water chemistry and sediment sampling will occur in the Base Year. This sampling will be conducted at the 39 sampling locations identified in Table 1 for the proposed monitoring parameters and timeline provided in Table 2, Task 5. In Option Periods 1 and 2 of this performance work statement, water chemistry and sediment sampling will continue at the 39 sampling locations identified in Table 1 and for the proposed monitoring parameters and timeline provided in Tables 2 and 3, Task 5, and include physical habitat, macroinvertebrate, and fish community and assemblage sampling at select locations outlined in Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology. Option Periods 1 and 2 work is dependent upon WIIN Act Appropriations.

Table 1 provides a list of sampling locations for the monitoring described in this plan. Figure 2 displays location of each sample site within the San Juan Watershed.

Table 1. List of Sampling Locations

Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
1	CDPHE	9488	EPA A68 (13.90) USGS 09358000 (13.90)	37.811202	-107.659167	Animas Above Cement	Main (above Cement)
2	CDPHE	9447	EPA M34 USGS 9359010	37.8028	-107.67222	Mineral Creek	Tributary to Animas
3	CDPHE	CEM49	EPA CC48 (12.54) USGS 09358550 (12.41)	37.819984	-107.663275	Cement Creek at Silverton CO	Main
4	CDPHE	82	EPA A72 (16.35) USGS 09359020 (16.34) RCWWN 3579 (15.88)	37.79027	-107.667578	Animas Below Silverton	Main
5	CDPHE	81	EPA Bakers Bridge (64.02) EPA GKM02 (63.83) RCWWN 3611 (16.4)	37.45844	-107.7997567	Animas River at Bakers Bridge	Main
6	CDPHE	9423A	EPA Rotary Park (94.24) EPA GKM05 (96.66) USGS GAGE RCWWN 3576 (93.83)	37.27456333	-107.8842733	Animas River at 9th Street	Main
7	SUIT	AR 19-3 (NAR1)	EPA GKM01 (103.16) CDPHE 9420C (103.16)	37.213842	-107.854161	Animas River at Southern Ute Tribe AR19-3	Main
8	SUIT	NAR 6	EPA AR2 7-a (130.65)	37.02342	-107.87387		Main
9	NMED	66Animas057.0	None	36.983263	-107.86758	Animas River below state line (Estes Arroyo to SUIT boundary)	Main

Table 1. List of Sampling Locations

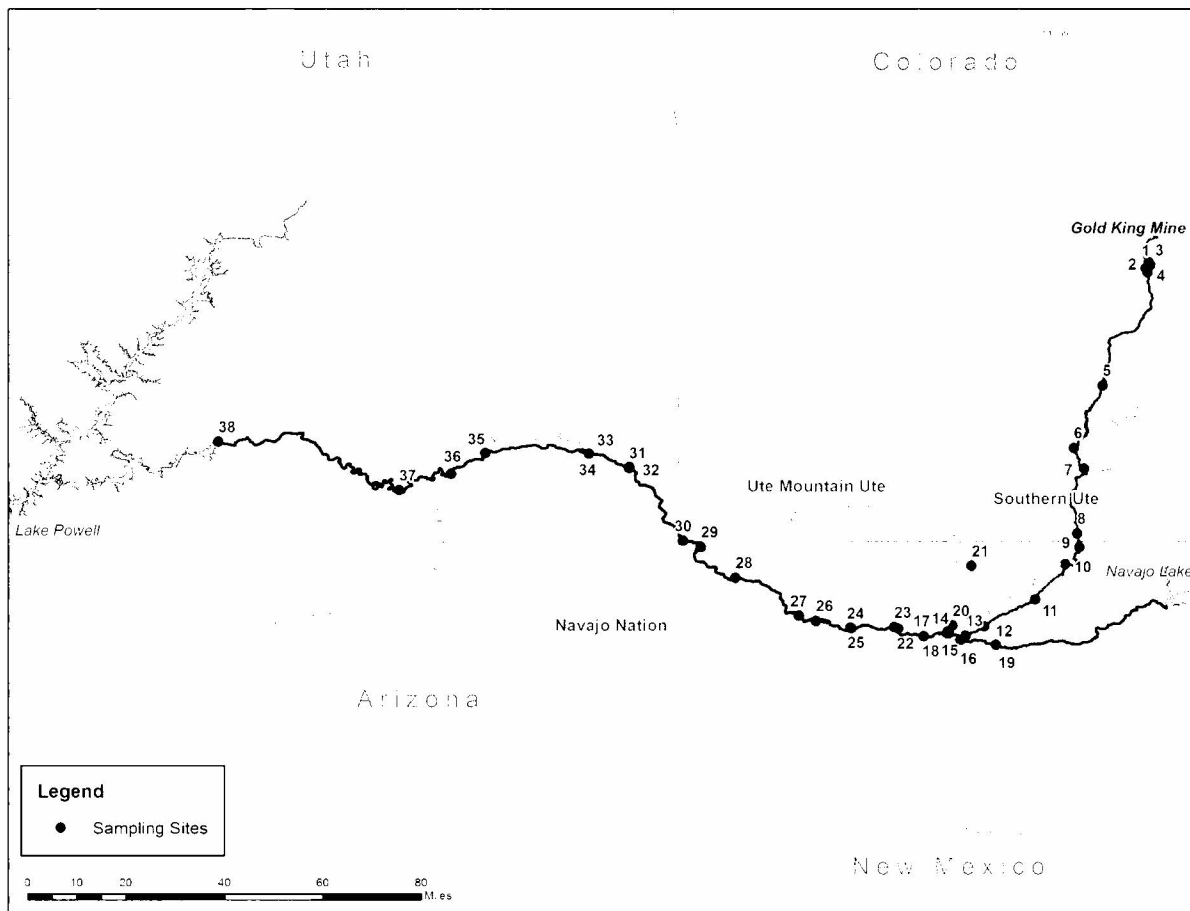
Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
10	EPA	ADW-022		36.9333	-107.90907	Aztec domestic water system, Intake Sampling Location	Main
11	NMED	66Animas028.1 (ANIMASAB)	EPA ADW010 (162.87)	36.82949	-107.997663	Animas River above Estes Arroyo, near Aztec	Main
12	NMED	66Animas009.8	EPA MW 020 (178.69)	36.750231	-108.146982	Animas River at CR 5000 above Farmington	Main
13	NMED	66Animas001.7 (ANIMASFM)	USGS 0936500 (192.96) EPA FW040 (190.16)	36.72303	-108.201611	Animas River at Boyd Park in Farmington	Main
14	NMED	66SanJua100.2	EPA LVW-020 (196.05)	36.730556	-108.251046	Lower valley water users association, Intake Sampling Location	Main
15	NNEPA	10FRUCANAL40	None	36.73082	-108.25602	Fruitland Canal @ first bridge downstream from headgate	CANAL
16	NMED	64SanJua101.6		36.711038	-108.218042	San Juan River above Animas River	Main
17	NMED NNEPA	67SanJua096.3 10SANJUANR37	EPA SJLP (196.87)	36.73588701	-108.2539868	San Juan River DS of the Animas confluence	Main
18	NMED	67SanJua088.1 (SJLION)	EPA LVW-030 (204.48)	36.722136	-108.325619	San Juan River at Lions Park near Kirtland	Main
19	NMED	64Galleg000.4		36.695866	-108.1125	Gallegos Canyon at San Juan River	Tributary to SJ
20	NMED	67LaPlat002.3		36.75252	-108.24047	La Plata River at Farmington City Park	Tributary to SJ
21	NMED	67LaPlat024.8		36.9289	-108.184698	La Plata River at La Plata, NM	Tributary to SJ
22	NMED	67Steven000.7		36.744115	-108.400245	Stevens Arroyo below CR 6100	Tributary to SJ
23	NNEPA	10SANJUANR38	EPA SJFP (214.43)	36.7482	-108.41163	San Juan River upstream from PNM fish passage	Main
24	NNEPA	NNEPA-10SANJUANR25	EPA SJHB (227.66) USGS 364446108321510 (227.61)	36.7454628	-108.5378488	San Juan River @ the bottom of the Hogback fish passage	Main
25	NNEPA	10HOGBACKC4 2	see above	36.74632	-108.54147	Hogback Canal between head gate and first waste way	CANAL
26	NNEPA	06CHACORIV04	None	36.76674	-108.64237	Chaco River near mouth	Tributary to SJ

Table 1. List of Sampling Locations

Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
27	NNEPA	10SANJUANR36	EPA SJSR (246.34) USGS 09368000 (246.12)	36.78157	-108.69281	San Juan River at Shiprock bridge	Main
28	NNEPA	10SANJUANR26	EPA SJDS (272.48)	36.89325249	-108.8785948	San Juan River 15 miles downstream from Shiprock	Main
29	NNEPA	07MANCOSRIO 1	None	36.98314479	-108.9797495	Mancos River near mouth	Tributary to SJ
30	UDEQ NNEPA	UDEQ 4954000 NNEPA- 02SANJUANR06	EPA SJ4C (295.83) UMUT SJ-4C (298.49) USGS 09371010 (298.53)	37.001755	-109.032726	San Juan River at US160 Xing in CO	Main
31	NNEPA	NNEPA 02SANJUANR09	EPA SJME (333.21)	37.215946	-109.192054	San Juan River at McElmo Wash	Main
32	UDEQ NNEPA	UDEQ 4953880 NNEPA 04MCELMOCRO 1	EPA MECT (332.89)	37.21868389	-109.1904117	McElmo Creek at Highway U262 Xing	Tributary to SJ
33	UDEQ NNEPA	UDEQ 4953990 NNEPA 02SANJUANR07	EPA SJMC (345.80)	37.257788	-109.30975	San Juan River at U262 Xing Phillips Camp Road Xing (San Juan River at Town of Montezuma)	Main
34	UDEQ	4953560	EPA SJMC (345.80) NNEPA-02SANJUANR07 (345.80)	37.272086	-109.327694	Montezuma Creek at U163 Xing	Tributary to SJ
35	UDEQ NNEPA	UDEQ 4953250 NNEPA 02SANJUANR08	EPA SJBB (377.62)	37.26027863	-109.6137343	San Juan River at Sand Island or San Juan at Bluff Bridge	Main
36	UDEQ NNEPA	UDEQ 4953020 NNEPA 01CHINLECR27	None	37.199119	-109.715572	Chinle Creek Above Confluence with San Juan River	Tributary to SJ
37	UDEQ NNEPA	UDEQ 4953000 NNEPA 29SANJUANR05	EPA SJMH (421.33) USGS 09379500 (420.92)	37.150758	-109.867672	San Juan River at Mexican Hat US163 Xing	Main
38	UDEQ	4952942	EPA SJCH (510.74)	37.293008	-110.399621	San Juan River at Clay Hills boat ramp	Main
39	Arizona	CGCLR713.70	Boat Ramp	36.921667	-111.483611	USGS Gage 09379910 at Lees Ferry	CO River

Key to jurisdictions: CDPHE = Colorado Department of Public Health and Environment; SUIT = Southern Ute Indian Tribe; NMED = New Mexico Environment Department; NN = Navajo Nation; UDEQ = Utah Department of Environmental Quality; Arizona = Arizona Department of Environmental Quality.

Figure 2. Location of sampling sites within the San Juan Watershed.



The contractor will follow the Long-Term Monitoring Plan and QAPP that was developed under a separate contract.

In year 1, the contractor will be responsible for working with EPA to develop a standardized field form for water chemistry and sediment. The contractor shall work with the EPA to ensure that a unique identifier (site ID) is created. The contractor will be responsible for providing field forms. Should the contractor be tasked with using an EPA-developed standardized field form for activities such as physical habitat assessment, macroinvertebrate or fish communities, EPA will provide the paper field forms for the specific field activity. The contractor shall submit a pdf of the form via email to EPA.

As another step in ensuring that all crews consistently apply the field protocols, EPA will arrange for training in the protocols outlined in the QAPP and an assistance visit (AV) during the crew's initial sampling visits. AVs will be conducted by EPA staff who have attended an EPA-

sponsored training or served as trainers. By having AVs early, the crew can incorporate corrective actions into sampling at the majority of their assigned sites.

II. PURPOSE

The purpose of this task order is to provide field sampling support to the EPA Office of Water in implementing the San Juan Watershed Long-Term Monitoring Plan. In particular, the contractor will schedule and deploy field crews to collect samples and observational data at selected sites in the San Juan Watershed. The contract field crews shall adhere to strict quality assurance and quality control (QA/QC) requirements, including attendance at a training provided by EPA; use of appropriate supplies and equipment; adherence to all shipping and logistical procedures; participation in quality assurance assistance visits; and adherence to data reporting requirements and deadlines as outlined in the long-term monitoring plan and QAPP.

III. GOVERNMENT FURNISHED INFORMATION

The EPA TOCOR will provide the following references via email.

- Reference 1: San Juan Watershed: Long-Term Monitoring Plan for Surface Water, Sediment, and Biology – DRAFT
- Reference 2: Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Surface Water and Sediment (QAPP) – DRAFT
- Reference 3: Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology (QAPP) – DRAFT
- Reference 4: NRSA 2013-2014 Field Forms
 - For field activities during which EPA National Rivers and Streams Protocols are employed, such as physical habitat assessment, macroinvertebrate, and fish community and assemblage, EPA will provide the contractor with paper forms during the task order's period of performance. The contractor shall work with the EPA to ensure that a unique identifier (site ID) is created.

During the period of performance, EPA will provide the contractor with:

- Training for the contractor's field crews in the summer of 2018 and spring of 2019.

IV. GENERAL REQUIREMENTS

In providing support under the tasks described in Section V, the contractor also shall adhere to the following general requirements:

1. Deliverables (see Contract PWS B.1)

Memoranda shall be placed on company letterhead and the subject line shall include the phrase "EPA Contract EP-C-16-0XX". When transmitting deliverables by email, subject headers should

include the contract, task order, and deliverable description (e.g., “EP-C-16-0XX TO X: QAPP Signature Pages”).

All electronic files shall be clearly named using the San Juan Watershed abbreviation, a logical abbreviation for the name of the document (e.g., QAPP), the contractor name (abbreviated), and the date of edits to assist in version control (e.g., SJW18_QAPP_XX_YYYYMMDD). Final versions shall be provided to EPA in both the original format (e.g., Word, PowerPoint) and PDF versions (if necessary, EPA will modify the files to be Section 508 compliant).

Unless specified differently by the EPA TOCOR in technical direction (per Contract Clause H.12), the contractor shall ensure that documentation is created using Agency standard software formats (e.g., Microsoft Office) to facilitate EPA use and review.

2. Meetings (see Contract Clause C.2)

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency’s official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

V. SCOPE OF WORK

Task 1. Monthly progress reports (See Contract Attachment 3; PWS C.3)

The contractor shall manage the Task Order (TO) and submit monthly progress and financial reports prepared and submitted in accordance with the contract clause, Attachment 3, Reports of Work. The monthly progress and financial reports shall be broken out by task. The monthly progress report shall include project status, number of sites sampled (current and cumulative), identify sites sampled during the reporting period, unexpected problems or concerns, lessons learned, QA/QC activities, and next steps. The contractor also shall brief the TOCOR on progress during periodic (e.g., weekly) teleconferences during periods of intense activity.

Deliverables and Schedule under Task 1:

Task	Deliverable	Due
1	Progress and financial reports	Monthly
	Calls with EPA	Per technical direction (per Contract Clause H.12)

Task 2. Quality Assurance (Contract PWS B.2, C.1.g)

Quality Assurance (QA) is an important component of EPA’s work to assure that minimum quality standards are attained. The contractor shall address the QA requirements of this task order by adhering to the requirements and procedures identified in:

- The contractor’s customized Quality Management Plan incorporated into this NARS contract;

- San Juan Watershed Long-Term Monitoring Plan QA documents which document how quality assurance and quality control will be applied to the collection of environmental data for the survey. The documents relevant to support in this task order are:
 - Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Surface Water and Sediment
 - Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology
 - San Juan Watershed: Long-Term Monitoring Plan for Surface Water, Sediment, and Biology

As demonstration of the contractor's:

- a. Commitment to adhere to the San Juan Watershed QAPPs, the contractor shall:
 - Ensure that all sampling personnel have reviewed and understand the requirements and procedures of the San Juan Watershed QAPPs, and Long-Term Monitoring Plan, which will be available prior to the field crew training session. The certification page entitled "Review & Distribution Acknowledgment and Commitment to Implement" is located in the introductory section of the QAPPs.
 - At a minimum, the following personnel shall sign the certification page for the QAPPs approved by EPA's Quality Assurance Officer:
 - Contractor's Task Order Leader
 - Contractor's Quality Assurance Officer,
 - **The crew leader must provide the signed certification page before the crew may commence with sampling events.**
 - At the contractor's discretion, it may also be appropriate for each field crew member to sign the certification page and transmit to EPA.
 - The contractor's QAO also shall sign the certification page for each revision of the QAPP that has been approved by EPA's QAO.
 - If EPA distributes updated versions of the QA documents and states that it contains a "significant change" relevant to field sampling, the contractor shall acknowledge, in writing (e.g., Email), that it has received and distributed the revised QA documents and other documents as necessary to the appropriate personnel. If any change will impact the scope and/or cost of the task order, the contractor shall notify the TOCOR and CO immediately.
- b. **Additional Key Personnel (EPAAR 1552.237-72) field crew leader (Task 7).** At a minimum, the field crew leader shall have at least three years of experience in leading field crews; and at least three years of experience in collecting water and sediment samples and conducting physical habitat sampling or fish sampling from rivers or streams; and experience collecting flow measurements using handheld flow measuring devices.
- c. **Permit EPA to perform an AV of its field crews during an early sampling event (e.g., the first sampling event by a crew, if possible).** The contractor shall coordinate with EPA, or its designee, on an agreed upon date and location for the AV. EPA will conduct the AV using a checklist provided by EPA, supplemented by photographs if

appropriate (e.g., to record a deviation in methods due to extenuating circumstances). Although EPA will arrange for the AVs, it is the contractor's responsibility to ensure that the contractor field crew is abiding by the requirements and procedures of the QAPP. Should a new crew leader or crews be assigned to this work, it is the contractor's responsibility to reach out to EPA to coordinate with EPA to perform an AV of the new field crew.

- b. Implementation of QA in performing the other tasks in this PWS, the contractor shall document its QA activities as follows:
- Reports of relevant QA activities in any deliverable. All QA documentation prepared under the task order shall be considered non-proprietary, except for the internal distribution list which may be claimed proprietary.
 - Monthly reports of QA activities performed during implementation of this task order. These monthly QA reports shall identify QA activities performed to support implementation of this task order, problems encountered, deviations from the San Juan Watershed QAPPs, and corrective actions taken. The contractor shall include the QA report with the monthly progress report. In addition, the contractor shall immediately bring to the attention of the TOCOR any QA problems that may affect the conduct of the tasks or the project, with recommendations for corrective actions.
- c. Commitment to continuous quality improvements, the contractor shall provide summaries of "lessons learned" based upon its support to the other tasks. EPA will use this information to improve future monitoring conducted under the San Juan Watershed Monitoring Program. The contractor shall incorporate EPA comments into revised versions.

Deliverables and Schedule under Task 2:

Task	Deliverable	Due
2	Signature page for each version of QAPP approved by EPA's QAO:	
	- With contractor's QAO and Task Order Leader signatures.	- No later than 5 working days after receiving the approved QAPP with EPA QAO's signature
	- With crew leader signature	- At training
	Email acknowledgement of QA documents with "significant change"	No later than 10 working days after receiving revised QA document
2	Memo with qualifications of field crew members, other than the field crew leader	With first draft of the schedule for field crew for the schedule outlined in the long-term monitoring plan. Unless circumstances change unexpectedly, qualifications of replacements, except key

Task	Deliverable	Due
		personnel, must be submitted at least one week prior to the sampling event. See key personnel clause for process for replacements through a task order modification.
2	Email with outcome of testing field forms with any recommended changes (applicable to EPA-provided forms, only)	5 working days after receiving the first electronic/paper version of field forms. 1-5 working days after receiving subsequent versions, depending on extent of revision and schedule implications.
2	Access to contractor's calibration and maintenance records	Within 5 working days after receiving technical direction (per Contract Clause H.12)
2	Allow access for EPA or its designee to conduct an assistance visit to each field crew	Per technical direction (per Contract Clause H.12), based upon scheduling discussions occurring prior to the crews first sampling event
2	Documentation of QA activities	In deliverables
2	Monthly reports of QA activities	With monthly progress report
2	Memorandum 1 with lessons learned for 2018 data collection	April 15, 2019. Revisions within 5 work days.
	Memorandum 2 with lessons learned for 2019 data collection	April 15, 2020. Revisions within 5 work days.
	Memorandum 3 with lessons learned in 2020 data collection	April 15, 2021. Revisions within 5 work days.

Task 3. Field Training

EPA will host a San Juan Watershed training session during the summer of calendar year 2018 and spring of calendar year 2019. For purposes of preparing the proposal response, the contractor shall use Golden, Colorado as the training site, which is near the Region 8 lab. The training will provide detailed instructions on the prescribed sampling methods for the San Juan Watershed long-term monitoring plan participants. The training may include up to three 2-hour webinars (e.g., overview and forms) and up to 1 to 2 days of combined classroom and field training. It is preferable that all crew members participate in training activities, but at a minimum the contractor shall ensure that the field crew leader participate in a training session unless the EPA TOCOR issues technical direction (per Contract Clause H.12). The contractor shall report out, each month, on any associated training costs (e.g., travel and LOE) broken out by training using the template provided by the EPA TOCOR.

1. Deliverables and Schedule under Task 3:

Task	Deliverable	Due
3	Attend training	Prior to first sampling event
3	Report out on costs associated with attending EPA Long-Term Monitoring Program trainings	With monthly progress report

Task 4. Pre-Sampling Site Evaluation (See Contract PWS C.1)

Table 1 identifies the sampling sites assigned to the contractor.

As part of the evaluation process, the contractor shall obtain the proper collection permit and/or landowner permission to sample sites, where necessary. It is imperative for the integrity of this long-term monitoring program that a thorough effort is made to gain permission to sample sites. For each field season, the contractor shall provide a summary of the permits that includes the following information:

- Site ID
- Name of Refuge/Park/Authority
- Agency
- Contact Information (for Agency)
- Date Approved (if available)
- Permit Number

Additionally:

- a. Unless directed otherwise by the TOCOR, the field crew shall provide notification to the TOCOR of a site not sampled and to determine if there is a replacement site.
- b. If the land is under control of a Tribe, the contractor shall receive prior approval from the EPA TOCOR **prior** to contacting any Tribal representatives or sampling the site.
- c. If the permit or any other requirements conflict with the study protocols, the contractor shall notify the EPA TOCOR who will decide whether the site should be retained or replaced.

Deliverables and Schedule under Task 4:

Task	Deliverable	Due
4	Summary of Permits	One month prior to the end of performance for the base period and OP1, and OP2.

Task	Deliverable	Due
	Email identifying Indian Tribe ownership of site	Within 2 working days of identification. (This notification is critical.)
	Email describing conflicts with study protocols	Within 2 working days of identification.

Task 5. Schedule (See Contract PWS C.2)

The purpose of the schedule is to ensure that the contractor **will sample sites during each of the hydrologic periods identified by the jurisdictions. See Table 2.** Prior to the start of each field season, EPA will provide details to the contractor regarding any priorities that must be taken into account in establishing the schedule (number of sites, order of sampling for specific years). As needed, the TOCOR shall issue technical direction related to this information. The contractor shall provide the following:

- a. Before the start of each field season, the contractor shall provide EPA with the first draft with tentative sampling dates and crew assignments for all sites. Throughout the monitoring schedule, the contractor shall revise the schedule to incorporate the EPA TOCOR's technical direction (per Contract Clause H.12) or mitigating factors, including, but not limited to, weather, field crew changes, and unanticipated delays.
- b. To support EPA's review of the draft schedule and revisions that affect early season sampling events, the contractor shall provide a written assessment of the expected conditions at the sites scheduled to be sampled prior to each hydrologic period sampling event. Only after receiving technical direction (per Contract Clause H.12) that approves the draft schedule and any revisions for sampling in May and June, shall the contractor arrange for travel to sites on the approved list. The contractor is responsible for providing EPA with a schedule of the sampling locations one week in advance of traveling to the field to conduct the work. Furthermore, the contractor shall be responsible for providing notice to jurisdictional authorities within two weeks prior to sampling on applicable jurisdictional sites. The contractor shall be responsible for providing notice to the lab within 30 days of the shipment of samples to be analyzed. This includes completing and submitting the requested forms and information.

TABLE 2. BASE PERIOD AND OPTION PERIODS 1 AND 2 SAMPLING AND MONITORING PARAMETERS AND TIMELINE.					
SAMPLING AND MONITORING SCHEDULE	FEBRUARY OR MARCH	MAY	JUNE	STORM EVENT JULY TO SEPT	AUGUST OR SEPTEMBER
BASE PERIOD (AWARD DATE TO JANUARY 31, 2019)				X (2018)	X (2018)
OPTION PERIOD 1 (FEBRUARY 1, 2019 TO JANUARY 31, 2020)	X (2019)	X (2019)	X (2019)	X (2019)	X (2019) ₂
OPTION PERIOD 2 (FEBRUARY 1, 2020 TO JANUARY 31, 2021)	X (2020)	X (2020)	X (2020)	X (2020)	X (2020) ₂
HYDROLOGIC PERIOD TO CAPTURE	Winter Low Flow	Spring Runoff (Rising Limb)	Spring Runoff (Peak Limb)	Monsoons	Late Summer Base Flow
WATER COLUMN - dissolved and total metals ¹ , dissolved organic carbon (DOC), total organic carbon (TOC), alkalinity, total suspended solids (TSS), total and dissolved hardness, sulfate, chloride	1 event	1 event	1 event	1 event	1 event
SEDIMENT – total metals ¹ , TOC, grain size	1 event	1 event	1 event		1 event
NUTRIENTS – total nitrogen, total phosphorus	1 event	1 event	1 event	1 event	1 event
BACTERIA – E. COLI	1 event	1 event	1 event		1 event
FIELD PARAMETERS	All sampling events will include field parameters (pH, temperature, dissolved oxygen, specific conductance and turbidity) measured with a data probe/sonde type instrumentation.				
FLOW	Provided via the nearest USGS gaging stations. Flow will be collected at Animas at Bakers Bridge, McElmo Creek, Chinle, Montezuma, Chaco River, and Mancos River.				
¹ Aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, chromium III, chromium VI, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, silver, sodium, strontium, thallium, uranium, vanadium, and zinc					
² In Option Periods 1 and 2, this sampling event will also include physical habitat, macroinvertebrate, and fish community assemblage sampling at select locations outlined in Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology. (see Table 3 below)					

Table 3. Sampling and Monitoring Schedule for Option Periods 1 and 2	
SAMPLING AND MONITORING SCHEDULE:	OPTION PERIODS 1 AND 2 (see Table 2 above)
HYDROLOGIC PERIOD TO CAPTURE:	Base Flow – Late Summer to early Fall (see Table 2 above)
BENTHOS¹ – metals	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
FISH TISSUE¹ – metals	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
BIOLOGICAL COMMUNITY – benthic macroinvertebrate	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
BIOLOGICAL COMMUNITY–fish populations	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
PHYSICAL HABITAT	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
IN-SITU	Collected at time of biological sampling.
FLOW	Collected at time of biological sampling. Provided via the nearest USGS gaging stations. Flow using handheld device to be collected at Animas at Bakers Bridge, McElmo Creek, Chinle, Montezuma, Chaco River, and Mancos River.
¹ Aluminum, antimony, arsenic, cadmium, chromium, copper, iron, lead, magnesium, mercury, nickel, selenium, silver, tin, vanadium, and zinc	

Deliverables and Schedule under Task 5:

Task	Deliverable	Due
5.a	First draft of sampling schedule	First draft due April 1, 2018 or later per technical direction (per Contract Clause H.12). Revisions per technical direction (per Contract Clause H.12). Revisions are required until the field sampling is complete.
5.b	Assessment of sites scheduled prior to each sampling event.	30 days prior to each field sampling event or later per technical direction (per Contract Clause H.12). Revisions per technical direction (per Contract Clause H.12)
5.c	Notification of site conditions if they are not conducive to sampling	As soon as possible per availability of phone or email access.

Task 6. Preparation for Field Sampling (See Contract PWS C.2)

The contractor shall prepare for field sampling visits as follows:

- a. The contractor shall be responsible for providing consumable materials as described in the QAPPs and the Standard Operating Procedures. These materials include but are not limited to sampling containers, and sampling equipment, e.g., filters for dissolved samples, preservatives, Teflon scoops, shipping materials.
- b. The contractor shall be responsible for arranging for and supply vehicles, staff, and all necessary non-consumable equipment to the field crews including, but not limited to, boats, safety equipment, multi-probes instrumentation, fish shocking equipment, appropriate devices for electronic data capture (if applicable), storm water collection equipment such as ISCO samplers, and GPS devices.

Deliverables and Schedule under Task 6:

Task	Deliverable	Due
6.a	Consumable supplies	During field sampling visits
6.b	Supply equipment	During field sampling visits

Task 7. Field Sampling Visits (See Contract PWS C.2)

The contractor shall complete the field sampling visits during the periods identified in Table 2, unless the EPA TOCOR provides technical direction (per Contract Clause H.12) to sample outside these time periods. For each field sampling visit, the contractor shall adhere to EPA's specified sampling methods outlined in the Quality Assurance/Quality Control requirements described in the QAPPs and Standard Operating Procedures. The EPA Region 7 lab will be

responsible for all analysis. As mentioned in Task 8, the contractor will be responsible for coordinating with the Region 7 lab and adhering to their processes. The contractor shall provide the following:

- a. To record observations and sample information, the contractor shall use standardized field forms on paper. The contractor will be responsible for providing field forms. Should the contractor be tasked with using an EPA-developed standardized field form for activities such as physical habitat assessment, macroinvertebrate or fish communities, EPA will provide the paper field forms for the specific field activity. If the contractor is using a hard copy, the contractor shall submit a pdf of the form via email to EPA.
- b. Prior to sample shipment, the contractor shall coordinate with the lab conducting the analysis and obtain information on the chain-of-custody (COC) form provided by the lab. The contractor then shall ship samples to the analytical laboratory.

Deliverables and Schedule under Task 7:

Task	Deliverable	Due
7a	Field Form for approval by the TOCOR	Two weeks prior to field sampling
7.b	Upload/Transmit forms and confirm transmittal/delivery was complete	As soon as possible (may vary depending on internet access and requirements in the 2017 FOM).
7.c	Ship samples and COC forms	Per QAPP.

Task 8. Post-Sampling Activities

The contractor shall perform any post-sampling requirements specified in permits. The contractor shall make field crews available to respond to EPA's post-sampling questions about the field sampling observations and procedures that might affect the data values and quality. If questions come from sources other than the EPA TOCOR (e.g., jurisdictions involved in this effort), contact the EPA TOCOR to coordinate the response or provide a summary by email (e.g., if the questions were posed through telephone conversations).

Unless the TOCOR grants an exception, the contractor shall refrain from publishing findings based upon work conducted under this task order. This restriction shall remain in effect until EPA provides public access to the data.

Once the EPA Region 7 lab has completed the analysis, the contractor will receive the lab results in a Microsoft Excel compatible format. The contractor shall conduct a review of the lab results, coordinate with EPA to share the lab results with the jurisdictions, and upload the results into the Water Quality Portal via the Water Quality Exchange. If the lab provides the contractor with lab results in a format not compatible with the Water Quality Exchange, it will be the responsibility of the contractor to format the data in a compatible format. The contractor shall be responsible for ensuring that the data is uploaded into WQX with the following information: Project ID

Animas_SanJuan_Watershed; Project Name: Animas San Juan Watershed; and Project Description: Monitoring performed in the Animas and San Juan Watershed. All macroinvertebrate and fish community data and physical / habitat data, the contractor shall be responsible for coordinating with EPA to have this data uploaded into the National Aquatic Resource Survey database.

Deliverables and Schedule under Task 8:

Task	Deliverable	Due
8a	Confirmation that actions required by permits have been completed	With monthly progress report
8b	Email responding to data questions	Within 5 working days, if field crew is available. Otherwise, provide email within 5 days with expected response date.
8c	Conduct review of the lab results	Within 15 working days of receiving the file from the lab.
8d	Coordinate with EPA to share lab results with the jurisdictions	Within 5 days of completing the contractor review
8e	Upload all field in-situ surface water measurements, water chemistry and sediment chemistry lab results into the Water Quality Portal	Within 5 days of completing all reviews
8f	Assist EPA to upload habitat data into the National Aquatic Resource Survey database	Within 5 days of completing reviews

TRAVEL

This section provides a summary of the travel requirements described in Section V. Assume each field crew contains 2 members. Here are assumptions to use in costing:

Task V.3 (Training) –

- All key personnel and crew members attend an EPA training prior to starting field sampling. (Actual training selected after award may differ from those used in this costing.)

Task V.7 (Sampling) – for every site,

- One field crew of 2 to 4 members travel to the site dependent upon sampling activity (e.g. fish tissue and physical habitat sampling will require more than a 2-member crew).

- Total of 39 site visits for each of the hydrological periods with the exception of 15 site visits for the storm event period identified in Table 2.
- Travel costs are minimized to the extent possible (e.g., combining nearby sites into one trip).

VI. Quality Assurance Surveillance Plan (QASP)

EPA will judge performance using the following Quality Assurance Surveillance Plan (QASP).

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
<p>Management and Communications:</p> <p>The Contractor shall maintain contact with the EPA TOCOR throughout the performance of the task order and shall immediately bring potential problems to the attention of the EPA TOCOR. In cases where issues have a direct impact on field sampling activities, project schedules (i.e., not each sampling event), cost, time, or quality, the contractor shall provide options for EPA's consideration on resolving the issues or mitigating their impacts.</p>	<p>Any issue adversely impacting project schedules, cost, time or quality shall be brought to the attention of the EPA TOCOR:</p> <p>i) If the contractor requires EPA guidance during a sampling event, the contractor must contact EPA prior to completing the sampling activities.</p> <p>ii) If the contractor identifies an issue that could affect multiple crews, the contractor shall contact EPA that day so that direction can be provided to all crews in the field.</p> <p>iii) If the contractor identifies sampling issues that are otherwise not urgent, the contractor shall</p>	<p>EPA TOCOR will identify unreported issues.</p>	<p>Four or more incidents where the contractor:</p> <ul style="list-style-type: none"> • Does not provide timely notification; or • Created a severe adverse situation <p>will be considered unsatisfactory performance and will be reported as such in the CPARS Performance Evaluation System under the category of Management.</p> <p>Fewer than four incidents where the contractor does not meet the measureable performance standard will be considered acceptable performance and will be reported as such in the CPARS Performance Evaluation System under the category of Management.</p>

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
	contact EPA within 5 working days.		
<p>Completeness:</p> <p>Samples, site evaluation spreadsheets, tracking forms and completed field sampling data forms shall be delivered in accordance with the requirements of the QAPP</p>	<p>100% of the samples shall be transmitted in accordance with the QAPP protocols for shipping. Excessive breakage or spoilage will count as a failure of sample delivery, if breakage/spoilage is a result of failing to follow the QAPP protocols for shipping.</p> <p>No more than 10% of the spreadsheets and field sampling forms shall be submitted more than 5 working days past the requirements in the long-term monitoring plan. If the field form or spreadsheet has not been completed correctly, it will be considered a failure of completeness.</p>	<p>100% of the lab delivery reports, spreadsheets, and field forms will be reviewed by the EPA TOCOR at the end of each hydrologic sampling to compare actual delivery dates against the requirements in the QAPP and long-term monitoring plan.</p>	<p>10 or more incidents where the contractor does not meet the measureable performance will be considered unsatisfactory performance and will be reported as such in the CPARS Performance Evaluation System under the category of Schedule.</p> <p>Fewer than ten incidents where the contractor does not meet the measureable performance standard will be considered acceptable performance and will be reported as such in the CPARS Performance Evaluation System.</p>
<p>Cost Management and Control:</p> <p>The Contractor shall monitor, track, and accurately report cost and fee expenditures to EPA</p>	<p>The contractor shall manage costs to the level of approved ceiling on the task order. The contractor shall notify the TOCOR,</p>	<p>The TOCOR will compare actual versus projected expenditures on a monthly basis (via meetings, monthly progress reports &</p>	<p>Unsatisfactory rating under the category of Cost Control in CPARS when the contractor does not meet the measurable performance standards.</p>

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
through progress reports and approved special reporting requirements. The Contractor shall assign appropriately leveled and skilled personnel to all tasks, practice and encourage time management, and ensure accurate and appropriate cost control.	PO and CO when 75% of the approved funding ceiling for the task order is reached.	milestones established for each deliverable).	An acceptable rating will be reported in the CPARS Performance Evaluation System under the category of Cost Control if the contractor meets the measureable performance standards and accurately reports the costs.
Technical Effort: The Contractor shall assign appropriately leveled and skilled personnel to all tasks; and abide by the contractor's QMP, long-term monitoring plan, and QAPP.	No more than 25% of reviewed deliverables and data shall require revisions to meet the requirements. All of the assigned staff must meet the requirements in the long-term monitoring plan, and QAPP.	100% of the data and staffing will be reviewed by the EPA TOCOR to identify noncompliance issues.	Unsatisfactory rating under the category of Quality in CPARS when the contractor does not meet the measurable performance standards during an applicable period of performance.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
				1	3
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY CP US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		7. ADMINISTERED BY (If other than Item 6) CP US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) ESS GROUP, INC. Attn: ROBERT ERICKSON 10 HEMINGWAY DR # 2 RIVERSIDE RI 02915		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
CODE 019131986		x		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-16-006 68HE0C18F0817	
FACILITY CODE				10B. DATED (SEE ITEM 13) 07/20/2018	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).				
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
	D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) DUNS Number: 019131986 The Purpose of this Modification is to:					
1. Remove the generic text instructions contained in Optional Form 347, Box 17(b). 2. Update the Contracting Officer to Nicholas Bisher, bisher.nicholas@epa.gov, (513) 487-2652.					
TOCOR: Shera Reems					
LIST OF CHANGES:					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			Nicholas Bisher		
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA	
(Signature of person authorized to sign)				(Signature of Contracting Officer)	
				16C. DATE SIGNED	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-16-006/68HE0C18F0817/P00001	2	3

NAME OF OFFEROR OR CONTRACTOR
ESS GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Reason for Modification: Other Administrative Action</p> <p>Total Amount for this Modification: \$0.00</p> <p>New Total Amount for this Version: \$0.00</p> <p>New Total Amount for this Award: \$720,676.00</p> <p>Buyer changed from D'Andre Boulden</p> <p>to Nicholas Bisher</p> <p>Contracting Officer changed from Sandra Stargardt-Licis</p> <p>to Nicholas Bisher</p> <p>Below is the language removed from Optional Form 347, Box 17(b):</p> <p>"INSERT DETAILS OF WHAT YOU NEED HERE. INDICATE THE FOLLOWING: BUYER: ACTION REQUESTED: AWARD NUMBER: NOTE: IF THIS TEXT IS PRINTING ON THE FORM PLEASE NAVIGATE TO E-REQUISITION, CLICK ON THE OCON BY REQGEN, SELECT FORM FILL IN AND THEN UPDATE THE HEADER TEXT. ONCE UPDATED YOU CAN DELETE THE NOTE."</p> <p>Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Period of Performance: 07/20/2018 to 01/31/2019</p>				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES									
						1 5									
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)									
P00002		See Block 16C		PR-OW-19-00059											
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE									
CPOD		CPOD		CPOD		CPOD									
CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268											
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				9A. AMENDMENT OF SOLICITATION NO.											
ESS GROUP, INC. Attn: ROBERT ERICKSON 10 HEMINGWAY DR # 2 RIVERSIDE RI 02915				(x)											
				9B. DATED (SEE ITEM 11)											
				10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-16-006 68HE0C18F0817											
CODE 019131986		FACILITY CODE		10B. DATED (SEE ITEM 13) 07/20/2018											
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS															
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.															
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule				(b)(4)											
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td>X</td> <td>D. OTHER (Specify type of modification and authority) Bilateral - EPAAR 1552.217-71, FAR 52.232-20</td> </tr> </table>								CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:	X	D. OTHER (Specify type of modification and authority) Bilateral - EPAAR 1552.217-71, FAR 52.232-20
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.														
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).														
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:														
X	D. OTHER (Specify type of modification and authority) Bilateral - EPAAR 1552.217-71, FAR 52.232-20														
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.															
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)															
DUNS Number: 019131986															
The Purpose of this Modification is to:															
1. Exercise Option Period 1 in the (b)(4)															
(b)(4)															
2. Obligate funding on Option Period 1 in the amount of (b)(4) which fully funds Option Period 1.															
3. Update EPAAR 1552.217-71 to (b)(4)															
(b)(4)															
4. Update contract Line Item 0002 to reflect the period of performance for Option Period 1 contained in EPAAR 52.217-71.															
Continued ...															
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.															
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)											
				Nicholas Bisher											
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED									
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		01/29/2019									

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-16-006/68HE0C18F0817/P00002PAGE OF
2 5NAME OF OFFEROR OR CONTRACTOR
ESS GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>TOCOR: Shera Reems Max Expire Date: 01/31/2021</p> <p>LIST OF CHANGES: Reason for Modification: Exercise an Option Period Of Performance End Date changed from 31-JAN-19 to 31-JAN-20 Total Amount for this Modification: \$0.00 New Total Amount for this Version: (b)(4) New Total Amount for this Award: \$720,676.00 Obligated Amount for this Modification: (b)(4) New Total Obligated Amount for this Award: (b)(4)</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 Obligated Amount for this Modification: (b)(4) Start Date changed from 17-JUL-18 to 01-FEB-19 End Date changed from 31-JAN-19 to 31-JAN-20 Exercised option</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 18-E4-87FL-000BL7-2505-1987LE9001-001 Beginning FiscalYear 18 Ending Fiscal Year Fund (Appropriation) E4 Budget Organization 87FL Program (PRC) 000BL7 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1987LE9001-001 Quantity: 0 Amount: (b)(4) Percent: 0 Subject To Funding: N Payment Address:</p> <p>Delivery: 01/31/2020 Delivery Location Code: CPOD Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-16-006/68HE0C18F0817/P00002PAGE OF
3 5

NAME OF OFFEROR OR CONTRACTOR

ESS GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268 USA Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 07/20/2018 to 01/31/2020 All other terms and conditions remain unchanged.				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES 1 5				
2. AMENDMENT/MODIFICATION NO. P00003		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule		5. PROJECT NO. (If applicable)			
6. ISSUED BY CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		CODE CAD		7. ADMINISTERED BY (If other than Item 6) 		CODE			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) ESS GROUP, INC. Attn: ROBERT ERICKSON 10 HEMINGWAY DR # 2 RIVERSIDE RI 02915				(x)			9A. AMENDMENT OF SOLICITATION NO.		
							9B. DATED (SEE ITEM 11)		
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-16-006 68HE0C18F0817		
							10B. DATED (SEE ITEM 13) 07/20/2018		
CODE 019131986		FACILITY CODE							
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS									
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.									
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule				(b)(4)					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.									
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
x		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Bilateral - Changes - FAR 52.243-2 Changes - Cost-Reimbursement (Alt.2)							
		D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.									
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) DUNS Number: 019131986 The Purpose of this Modification is to: 1. Increase the total cost of this Task Order to account for the need for increased scope to allow for the completion of Performance Work Statement (PWS) tasks 8c - 8e from the base period, additional costs for containers and coordination/logistics with multiple EPA labs to complete water quality sampling, and to add task 9 to the PWS including additional travel. This Modification results in (b)(4) and fixed fee (b)(4) to Option Period 1. This results in a new total cost plus fixed amount of (b)(4) for Option Period 1, and a new total Task Order cost plus fixed amount of (b)(4). Additionally, this Modification obligates funding on Continued ... Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.									
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Nicholas Bisher					
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)		16C. DATE SIGNED 05/23/2019			

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-16-006/68HE0C18F0817/P00003

PAGE 2 OF 5

NAME OF OFFEROR OR CONTRACTOR
ESS GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Option Period 1 in the amount of (b)(4) which fully funds this task order.</p> <p>2. Update the Issuing Address and Administrative address to Cincinnati Acquisition Division (CAD)</p> <p>TOCOR: Shera Reems Max Expire Date: 01/31/2021 Invoice Approver: Shera Reems Alt Invoice App: Forrest John</p> <p>LIST OF CHANGES: Reason for Modification: Supplemental Agreement for work within scope Total Amount for this Modification: (b)(4) New Total Amount for this Version: (b)(4) New Total Amount for this Award: (b)(4) Obligated Amount for this Modification: (b)(4) New Total Obligated Amount for this Award: (b)(4)</p> <p>New Issuing Address: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001</p> <p>New Administration Address: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 Total Amount changed (b)(4) Obligated Amount for this Modification: (b)(4)</p> <p>CHANGES FOR DELIVERY LOCATION: CPOD (b)(4)</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 18-E4-87AR-000BL7-2505-1987RE9005-002 Beginning Fiscal Year 18 Ending Fiscal Year Fund (Appropriation) E4 Continued ...</p>				

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-16-006/68HE0C18F0817/P00003	3	5

NAME OF OFFEROR OR CONTRACTOR
ESS GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Budget Organization 87AR Program (PRC) 000BL7 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1987RE9005-002 Quantity: 0 Amount: (b)(4) Percent: (b)(4) Subject To Funding: N Payment Address: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 07/20/2018 to 01/31/2020				
9999	****FOR ADMINISTRATIVE TRACKING PURPOSES ONLY**** EP-C-16-006 Delivery Order 68HE0C18F0817 All other terms and conditions remain unchanged.				0.00

**Performance Work Statement
NARS2 Contract
EP-C-16-006/ 68HE0C18F0817**

A. TITLE: San Juan Watershed Monitoring Program

B. EPA PERSONNEL

Task Order Contracting Officer Representative (TOCOR):

Name: Shera Reems
Office: EPA Region 8, Office of Water Protection
Address: 1595 Wynkoop Street, Denver, CO 80202-1129
Telephone: 303-312-6888
E-mail: reems.shera@epa.gov

Alternate Task Order Contracting Officer Representative (TOCOR):

Name: Forrest John
Office: EPA R6, Water Division
Address: 1445 Ross Avenue, Dallas, TX, 75202
Telephone: 214-665-8368
E-mail: john.forrest@epa.gov

C. ESTIMATED PERIOD OF PERFORMANCE

Base Period: Award Date through January 31, 2019
Option Period 1: February 1, 2019 through January 31, 2020
Option Period 2: February 1, 2020 through January 31, 2021

D. TYPE OF TASK ORDER: Cost plus Fixed Fee (CPFF)

I. BACKGROUND:

As part of the San Juan Watershed Monitoring Program, EPA, in collaboration with the jurisdictions of Arizona, Colorado, New Mexico, Utah, Navajo Nation, Southern Ute, and Ute Mountain Ute, are implementing the San Juan Watershed Long-Term Monitoring Plan. The San Juan Watershed Long-Term Monitoring Plan is designed to:

1. Implement a consistent approach to data collection and assessment of the water quality conditions in the San Juan Watershed and encompassing rivers (Animas and San Juan Rivers and Lake Powell);
2. Characterize water and sediment quality under the primary hydrologic regimes of spring runoff, summer base flow, fall monsoons, and winter low-flow conditions;
3. Share collected water quality data with the public;
4. Communicate to the public the water quality conditions in the San Juan Watershed; and
5. Guide management actions.

The candidate sites are located throughout the San Juan Watershed. EPA, in collaboration with the jurisdictions, have identified 39 monitoring locations along Cement Creek, Mineral Creek, the Animas River, the San Juan River, various tributaries and diversion canals, and the Colorado River immediately below Lake Powell. In collaboration with the jurisdictions, water chemistry and sediment sampling will occur in the Base Year. This sampling will be conducted at the 39 sampling locations identified in Table 1 for the proposed monitoring parameters and timeline provided in Table 2, Task 5. In Option Periods 1 and 2 of this performance work statement, water chemistry and sediment sampling will continue at the 39 sampling locations identified in Table 1 and for the proposed monitoring parameters and timeline provided in Tables 2 and 3, Task 5, and include physical habitat, macroinvertebrate, and fish community and assemblage sampling at select locations outlined in Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology. Option Periods 1 and 2 work is dependent upon WIIN Act Appropriations.

Table 1 provides a list of sampling locations for the monitoring described in this plan. Figure 2 displays location of each sample site within the San Juan Watershed.

Table 1. List of Sampling Locations

Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
1	CDPHE	9488	EPA A68 (13.90) USGS 09358000 (13.90)	37.811202	-107.659167	Animas Above Cement	Main (above Cement)
2	CDPHE	9447	EPA M34 USGS 9359010	37.8028	-107.67222	Mineral Creek	Tributary to Animas
3	CDPHE	CEM49	EPA CC48 (12.54) USGS 09358550 (12.41)	37.819984	-107.663275	Cement Creek at Silverton CO	Main
4	CDPHE	82	EPA A72 (16.35) USGS 09359020 (16.34) RCWWN 3579 (15.88)	37.79027	-107.667578	Animas Below Silverton	Main
5	CDPHE	81	EPA Bakers Bridge (64.02) EPA GKM02 (63.83) RCWWN 3611 (16.4)	37.45844	-107.7997567	Animas River at Bakers Bridge	Main
6	CDPHE	9423A	EPA Rotary Park (94.24) EPA GKM05 (96.66) USGS GAGE RCWWN 3576 (93.83)	37.27456333	-107.8842733	Animas River at 9th Street	Main
7	SUIT	AR 19-3 (NAR1)	EPA GKM01 (103.16) CDPHE 9420C (103.16)	37.213842	-107.854161	Animas River at Southern Ute Tribe AR19-3	Main
8	SUIT	NAR 6	EPA AR2 7-a (130.65)	37.02342	-107.87387		Main
9	NMED	66Animas057.0	None	36.983263	-107.86758	Animas River below state line (Estes Arroyo to SUIT boundary)	Main

Table 1. List of Sampling Locations

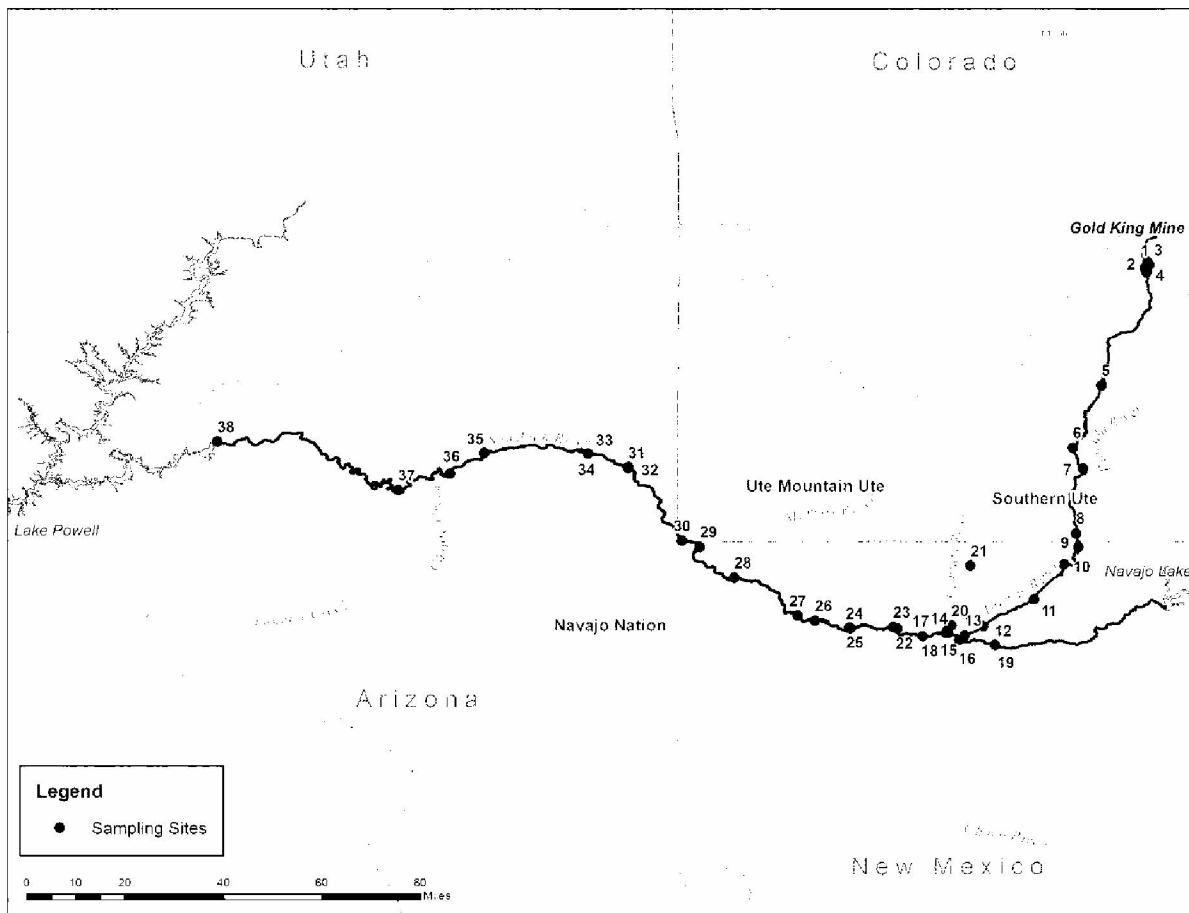
Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
10	EPA	ADW-022		36.9333	-107.90907	Aztec domestic water system, Intake Sampling Location	Main
11	NMED	66Animas028.1 (ANIMASAB)	EPA ADW010 (162.87)	36.82949	-107.997663	Animas River above Estes Arroyo, near Aztec	Main
12	NMED	66Animas009.8	EPA MW 020 (178.69)	36.750231	-108.146982	Animas River at CR 5000 above Farmington	Main
13	NMED	66Animas001.7 (ANIMASFM)	USGS 0936500 (192.96) EPA FW040 (190.16)	36.72303	-108.201611	Animas River at Boyd Park in Farmington	Main
14	NMED	66SanJua100.2	EPA LVW-020 (196.05)	36.730556	-108.251046	Lower valley water users association, Intake Sampling Location	Main
15	NNEPA	10FRUCANAL40	None	36.73082	-108.25602	Fruitland Canal @ first bridge downstream from headgate	CANAL
16	NMED	64SanJua101.6		36.711038	-108.218042	San Juan River above Animas River	Main
17	NMED NNEPA	67SanJua096.3 10SANJUANR37	EPA SJLP (196.87)	36.73588701	-108.2539868	San Juan River DS of the Animas confluence	Main
18	NMED	67SanJua088.1 (SJLION)	EPA LVW-030 (204.48)	36.722136	-108.325619	San Juan River at Lions Park near Kirtland	Main
19	NMED	64Galleg000.4		36.695866	-108.1125	Gallegos Canyon at San Juan River	Tributary to SJ
20	NMED	67LaPlat002.3		36.75252	-108.24047	La Plata River at Farmington City Park	Tributary to SJ
21	NMED	67LaPlat024.8		36.9289	-108.184698	La Plata River at La Plata, NM	Tributary to SJ
22	NMED	67Steven000.7		36.744115	-108.400245	Stevens Arroyo below CR 6100	Tributary to SJ
23	NNEPA	10SANJUANR38	EPA SJFP (214.43)	36.7482	-108.41163	San Juan River upstream from PNM fish passage	Main
24	NNEPA	NNEPA-10SANJUANR25	EPA SJHB (227.66) USGS 364446108321510 (227.61)	36.7454628	-108.5378488	San Juan River @ the bottom of the Hogback fish passage	Main
25	NNEPA	10HOGBACKC4 2	see above	36.74632	-108.54147	Hogback Canal between head gate and first waste way	CANAL
26	NNEPA	06CHACORIV04	None	36.76674	-108.64237	Chaco River near mouth	Tributary to SJ

Table 1. List of Sampling Locations

Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
27	NNEPA	10SANJUANR36	EPA SJSR (246.34) USGS 09368000 (246.12)	36.78157	-108.69281	San Juan River at Shiprock bridge	Main
28	NNEPA	10SANJUANR26	EPA SJDS (272.48)	36.89325249	-108.8785948	San Juan River 15 miles downstream from Shiprock	Main
29	NNEPA	07MANCOSRIO 1	None	36.98314479	-108.9797495	Mancos River near mouth	Tributary to SJ
30	UDEQ NNEPA	UDEQ 4954000 NNEPA- 02SANJUANR06	EPA SJ4C (295.83) UMUT SJ-4C (298.49) USGS 09371010 (298.53)	37.001755	-109.032726	San Juan River at US160 Xing in CO	Main
31	NNEPA	NNEPA 02SANJUANR09	EPA SJME (333.21)	37.215946	-109.192054	San Juan River at McElmo Wash	Main
32	UDEQ NNEPA	UDEQ 4953880 NNEPA 04MCELMOCRO 1	EPA MECT (332.89)	37.21868389	-109.1904117	McElmo Creek at Highway U262 Xing	Tributary to SJ
33	UDEQ NNEPA	UDEQ 4953990 NNEPA 02SANJUANR07	EPA SJMC (345.80)	37.257788	-109.30975	San Juan River at U262 Xing Phillips Camp Road Xing (San Juan River at Town of Montezuma)	Main
34	UDEQ	4953560	EPA SJMC (345.80) NNEPA-02SANJUANR07 (345.80)	37.272086	-109.327694	Montezuma Creek at U163 Xing	Tributary to SJ
35	UDEQ NNEPA	UDEQ 4953250 NNEPA 02SANJUANR08	EPA SJBB (377.62)	37.26027863	-109.6137343	San Juan River at Sand Island or San Juan at Bluff Bridge	Main
36	UDEQ NNEPA	UDEQ 4953020 NNEPA 01CHINLECR27	None	37.199119	-109.715572	Chinle Creek Above Confluence with San Juan River	Tributary to SJ
37	UDEQ NNEPA	UDEQ 4953000 NNEPA 29SANJUANR05	EPA SJMH (421.33) USGS 09379500 (420.92)	37.150758	-109.867672	San Juan River at Mexican Hat US163 Xing	Main
38	UDEQ	4952942	EPA SJCH (510.74)	37.293008	-110.399621	San Juan River at Clay Hills boat ramp	Main
39	Arizona	CGCLR713.70	Boat Ramp	36.921667	-111.483611	USGS Gage 09379910 at Lees Ferry	CO River

Key to jurisdictions: CDPHE = Colorado Department of Public Health and Environment; SUIT = Southern Ute Indian Tribe; NMED = New Mexico Environment Department; NN = Navajo Nation; UDEQ = Utah Department of Environmental Quality; Arizona = Arizona Department of Environmental Quality.

Figure 2. Location of sampling sites within the San Juan Watershed.



The contractor will follow the Long-Term Monitoring Plan and QAPP that was developed under a separate contract.

In year 1, the contractor will be responsible for working with EPA to develop a standardized field form for water chemistry and sediment. The contractor shall work with the EPA to ensure that a unique identifier (site ID) is created. The contractor will be responsible for providing field forms. Should the contractor be tasked with using an EPA-developed standardized field form for activities such as physical habitat assessment, macroinvertebrate or fish communities, EPA will provide the paper field forms for the specific field activity. The contractor shall submit a pdf of the form via email to EPA.

As another step in ensuring that all crews consistently apply the field protocols, EPA will arrange for training in the protocols outlined in the QAPP and an assistance visit (AV) during the crew's initial sampling visits. AVs will be conducted by EPA staff who have attended an EPA-

sponsored training or served as trainers. By having AVs early, the crew can incorporate corrective actions into sampling at the majority of their assigned sites.

II. PURPOSE

The purpose of this task order is to provide field sampling support to the EPA Office of Water in implementing the San Juan Watershed Long-Term Monitoring Plan. In particular, the contractor will schedule and deploy field crews to collect samples and observational data at selected sites in the San Juan Watershed. The contract field crews shall adhere to strict quality assurance and quality control (QA/QC) requirements, including attendance at a training provided by EPA; use of appropriate supplies and equipment; adherence to all shipping and logistical procedures; participation in quality assurance assistance visits; and adherence to data reporting requirements and deadlines as outlined in the long-term monitoring plan and QAPP.

III. GOVERNMENT FURNISHED INFORMATION

The EPA TOCOR will provide the following references via email.

- Reference 1: San Juan Watershed: Long-Term Monitoring Plan for Surface Water, Sediment, and Biology – DRAFT
- Reference 2: Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Surface Water and Sediment (QAPP) – DRAFT
- Reference 3: Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology (QAPP) – DRAFT
- Reference 4: NRSA 2013-2014 Field Forms
 - For field activities during which EPA National Rivers and Streams Protocols are employed, such as physical habitat assessment, macroinvertebrate, and fish community and assemblage, EPA will provide the contractor with paper forms during the task order's period of performance. The contractor shall work with the EPA to ensure that a unique identifier (site ID) is created.

During the period of performance, EPA will provide the contractor with:

- Training for the contractor's field crews in the summer of 2018 and spring of 2019.

IV. GENERAL REQUIREMENTS

In providing support under the tasks described in Section V, the contractor also shall adhere to the following general requirements:

1. Deliverables (see Contract PWS B.1)

Memoranda shall be placed on company letterhead and the subject line shall include the phrase "EPA Contract EP-C-16-0XX". When transmitting deliverables by email, subject headers should

include the contract, task order, and deliverable description (e.g., “EP-C-16-0XX TO X: QAPP Signature Pages”).

All electronic files shall be clearly named using the San Juan Watershed abbreviation, a logical abbreviation for the name of the document (e.g., QAPP), the contractor name (abbreviated), and the date of edits to assist in version control (e.g., SJW18_QAPP_XX_YYYYMMDD). Final versions shall be provided to EPA in both the original format (e.g., Word, PowerPoint) and PDF versions (if necessary, EPA will modify the files to be Section 508 compliant).

Unless specified differently by the EPA TOCOR in technical direction (per Contract Clause H.12), the contractor shall ensure that documentation is created using Agency standard software formats (e.g., Microsoft Office) to facilitate EPA use and review.

2. Meetings (see Contract Clause C.2)

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency’s official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

V. SCOPE OF WORK

Task 1. Monthly progress reports (See Contract Attachment 3; PWS C.3)

The contractor shall manage the Task Order (TO) and submit monthly progress and financial reports prepared and submitted in accordance with the contract clause, Attachment 3, Reports of Work. The monthly progress and financial reports shall be broken out by task. The monthly progress report shall include project status, number of sites sampled (current and cumulative), identify sites sampled during the reporting period, unexpected problems or concerns, lessons learned, QA/QC activities, and next steps. The contractor also shall brief the TOCOR on progress during periodic (e.g., weekly) teleconferences during periods of intense activity.

Deliverables and Schedule under Task 1:

Task	Deliverable	Due
1	Progress and financial reports	Monthly
	Calls with EPA	Per technical direction (per Contract Clause H.12)

Task 2. Quality Assurance (Contract PWS B.2, C.1.g)

Quality Assurance (QA) is an important component of EPA’s work to assure that minimum quality standards are attained. The contractor shall address the QA requirements of this task order by adhering to the requirements and procedures identified in:

- The contractor’s customized Quality Management Plan incorporated into this NARS contract;

- San Juan Watershed Long-Term Monitoring Plan QA documents which document how quality assurance and quality control will be applied to the collection of environmental data for the survey. The documents relevant to support in this task order are:
 - Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Surface Water and Sediment
 - Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology
 - San Juan Watershed: Long-Term Monitoring Plan for Surface Water, Sediment, and Biology

As demonstration of the contractor's:

- a. Commitment to adhere to the San Juan Watershed QAPPs, the contractor shall:
 - Ensure that all sampling personnel have reviewed and understand the requirements and procedures of the San Juan Watershed QAPPs, and Long-Term Monitoring Plan, which will be available prior to the field crew training session. The certification page entitled "Review & Distribution Acknowledgment and Commitment to Implement" is located in the introductory section of the QAPPs.
 - At a minimum, the following personnel shall sign the certification page for the QAPPs approved by EPA's Quality Assurance Officer:
 - Contractor's Task Order Leader
 - Contractor's Quality Assurance Officer,
 - **The crew leader must provide the signed certification page before the crew may commence with sampling events.**
 - At the contractor's discretion, it may also be appropriate for each field crew member to sign the certification page and transmit to EPA.
 - The contractor's QAO also shall sign the certification page for each revision of the QAPP that has been approved by EPA's QAO.
 - If EPA distributes updated versions of the QA documents and states that it contains a "significant change" relevant to field sampling, the contractor shall acknowledge, in writing (e.g., Email), that it has received and distributed the revised QA documents and other documents as necessary to the appropriate personnel. If any change will impact the scope and/or cost of the task order, the contractor shall notify the TOCOR and CO immediately.
- b. **Additional Key Personnel (EPAAR 1552.237-72) field crew leader (Task 7).** At a minimum, the field crew leader shall have at least three years of experience in leading field crews; and at least three years of experience in collecting water and sediment samples and conducting physical habitat sampling or fish sampling from rivers or streams; and experience collecting flow measurements using handheld flow measuring devices.
- c. **Permit EPA to perform an AV of its field crews during an early sampling event (e.g., the first sampling event by a crew, if possible).** The contractor shall coordinate with EPA, or its designee, on an agreed upon date and location for the AV. EPA will conduct the AV using a checklist provided by EPA, supplemented by photographs if

appropriate (e.g., to record a deviation in methods due to extenuating circumstances). Although EPA will arrange for the AVs, it is the contractor's responsibility to ensure that the contractor field crew is abiding by the requirements and procedures of the QAPP. Should a new crew leader or crews be assigned to this work, it is the contractor's responsibility to reach out to EPA to coordinate with EPA to perform an AV of the new field crew.

- b. Implementation of QA in performing the other tasks in this PWS, the contractor shall document its QA activities as follows:
 - Reports of relevant QA activities in any deliverable. All QA documentation prepared under the task order shall be considered non-proprietary, except for the internal distribution list which may be claimed proprietary.
 - Monthly reports of QA activities performed during implementation of this task order. These monthly QA reports shall identify QA activities performed to support implementation of this task order, problems encountered, deviations from the San Juan Watershed QAPPs, and corrective actions taken. The contractor shall include the QA report with the monthly progress report. In addition, the contractor shall immediately bring to the attention of the TOCOR any QA problems that may affect the conduct of the tasks or the project, with recommendations for corrective actions.
- c. Commitment to continuous quality improvements, the contractor shall provide summaries of "lessons learned" based upon its support to the other tasks. EPA will use this information to improve future monitoring conducted under the San Juan Watershed Monitoring Program. The contractor shall incorporate EPA comments into revised versions.

Deliverables and Schedule under Task 2:

Task	Deliverable	Due
2	Signature page for each version of QAPP approved by EPA's QAO:	
	- With contractor's QAO and Task Order Leader signatures.	- No later than 5 working days after receiving the approved QAPP with EPA QAO's signature
	- With crew leader signature	- At training
	Email acknowledgement of QA documents with "significant change"	No later than 10 working days after receiving revised QA document
2	Memo with qualifications of field crew members, other than the field crew leader	With first draft of the schedule for field crew for the schedule outlined in the long-term monitoring plan. Unless circumstances change unexpectedly, qualifications of replacements, except key

Task	Deliverable	Due
		personnel, must be submitted at least one week prior to the sampling event. See key personnel clause for process for replacements through a task order modification.
2	Email with outcome of testing field forms with any recommended changes (applicable to EPA-provided forms, only)	5 working days after receiving the first electronic/paper version of field forms. 1-5 working days after receiving subsequent versions, depending on extent of revision and schedule implications.
2	Access to contractor's calibration and maintenance records	Within 5 working days after receiving technical direction (per Contract Clause H.12)
2	Allow access for EPA or its designee to conduct an assistance visit to each field crew	Per technical direction (per Contract Clause H.12), based upon scheduling discussions occurring prior to the crews first sampling event
2	Documentation of QA activities	In deliverables
2	Monthly reports of QA activities	With monthly progress report
2	Memorandum 1 with lessons learned for 2018 data collection	April 15, 2019. Revisions within 5 work days.
	Memorandum 2 with lessons learned for 2019 data collection	April 15, 2020. Revisions within 5 work days.
	Memorandum 3 with lessons learned in 2020 data collection	April 15, 2021. Revisions within 5 work days.

Task 3. Field Training

EPA will host a San Juan Watershed training session during the summer of calendar year 2018 and spring of calendar year 2019. For purposes of preparing the proposal response, the contractor shall use Golden, Colorado as the training site, which is near the Region 8 lab. The training will provide detailed instructions on the prescribed sampling methods for the San Juan Watershed long-term monitoring plan participants. The training may include up to three 2-hour webinars (e.g., overview and forms) and up to 1 to 2 days of combined classroom and field training. It is preferable that all crew members participate in training activities, but at a minimum the contractor shall ensure that the field crew leader participate in a training session unless the EPA TOCOR issues technical direction (per Contract Clause H.12). The contractor shall report out, each month, on any associated training costs (e.g., travel and LOE) broken out by training using the template provided by the EPA TOCOR.

1. Deliverables and Schedule under Task 3:

Task	Deliverable	Due
3	Attend training	Prior to first sampling event
3	Report out on costs associated with attending EPA Long-Term Monitoring Program trainings	With monthly progress report

Task 4. Pre-Sampling Site Evaluation (See Contract PWS C.1)

Table 1 identifies the sampling sites assigned to the contractor.

As part of the evaluation process, the contractor shall obtain the proper collection permit and/or landowner permission to sample sites, where necessary. It is imperative for the integrity of this long-term monitoring program that a thorough effort is made to gain permission to sample sites. For each field season, the contractor shall provide a summary of the permits that includes the following information:

- Site ID
- Name of Refuge/Park/Authority
- Agency
- Contact Information (for Agency)
- Date Approved (if available)
- Permit Number

Additionally:

- a. Unless directed otherwise by the TOCOR, the field crew shall provide notification to the TOCOR of a site not sampled and to determine if there is a replacement site.
- b. If the land is under control of a Tribe, the contractor shall receive prior approval from the EPA TOCOR **prior** to contacting any Tribal representatives or sampling the site.
- c. If the permit or any other requirements conflict with the study protocols, the contractor shall notify the EPA TOCOR who will decide whether the site should be retained or replaced.

Deliverables and Schedule under Task 4:

Task	Deliverable	Due
4	Summary of Permits	One month prior to the end of performance for the base period and OP1, and OP2.

Task	Deliverable	Due
	Email identifying Indian Tribe ownership of site	Within 2 working days of identification. (This notification is critical.)
	Email describing conflicts with study protocols	Within 2 working days of identification.

Task 5. Schedule (See Contract PWS C.2)

The purpose of the schedule is to ensure that the contractor **will sample sites during each of the hydrologic periods identified by the jurisdictions. See Table 2.** Prior to the start of each field season, EPA will provide details to the contractor regarding any priorities that must be taken into account in establishing the schedule (number of sites, order of sampling for specific years). As needed, the TOCOR shall issue technical direction related to this information. The contractor shall provide the following:

- a. Before the start of each field season, the contractor shall provide EPA with the first draft with tentative sampling dates and crew assignments for all sites. Throughout the monitoring schedule, the contractor shall revise the schedule to incorporate the EPA TOCOR's technical direction (per Contract Clause H.12) or mitigating factors, including, but not limited to, weather, field crew changes, and unanticipated delays.
- b. To support EPA's review of the draft schedule and revisions that affect early season sampling events, the contractor shall provide a written assessment of the expected conditions at the sites scheduled to be sampled prior to each hydrologic period sampling event. Only after receiving technical direction (per Contract Clause H.12) that approves the draft schedule and any revisions for sampling in May and June, shall the contractor arrange for travel to sites on the approved list. The contractor is responsible for providing EPA with a schedule of the sampling locations one week in advance of traveling to the field to conduct the work. Furthermore, the contractor shall be responsible for providing notice to jurisdictional authorities within two weeks prior to sampling on applicable jurisdictional sites. The contractor shall be responsible for providing notice to the lab within 30 days of the shipment of samples to be analyzed. This includes completing and submitting the requested forms and information.

TABLE 2. BASE PERIOD AND OPTION PERIODS 1 AND 2 SAMPLING AND MONITORING PARAMETERS AND TIMELINE.					
SAMPLING AND MONITORING SCHEDULE	FEBRUARY OR MARCH	MAY	JUNE	STORM EVENT JULY TO SEPT	AUGUST OR SEPTEMBER
BASE PERIOD (AWARD DATE TO JANUARY 31, 2019)				X (2018)	X (2018)
OPTION PERIOD 1 (FEBRUARY 1, 2019 TO JANUARY 31, 2020)	X (2019)	X (2019)	X (2019)	X (2019)	X (2019) ²
OPTION PERIOD 2 (FEBRUARY 1, 2020 TO JANUARY 31, 2021)	X (2020)	X (2020)	X (2020)	X (2020)	X (2020) ²
HYDROLOGIC PERIOD TO CAPTURE	Winter Low Flow	Spring Runoff (Rising Limb)	Spring Runoff (Peak Limb)	Monsoons	Late Summer Base Flow
WATER COLUMN - dissolved and total metals ¹ , dissolved organic carbon (DOC), total organic carbon (TOC), alkalinity, total suspended solids (TSS), total and dissolved hardness, sulfate, chloride	1 event	1 event	1 event	1 event	1 event
SEDIMENT – total metals ¹ , TOC, grain size	1 event	1 event	1 event		1 event
NUTRIENTS – total nitrogen, total phosphorus	1 event	1 event	1 event	1 event	1 event
BACTERIA – E. COLI	1 event	1 event	1 event		1 event
FIELD PARAMETERS	All sampling events will include field parameters (pH, temperature, dissolved oxygen, specific conductance and turbidity) measured with a data probe/sonde type instrumentation.				
FLOW	Provided via the nearest USGS gaging stations. Flow will be collected at Animas at Bakers Bridge, McElmo Creek, Chinle, Montezuma, Chaco River, and Mancos River.				
¹ Aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, chromium III, chromium VI, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, silver, sodium, strontium, thallium, uranium, vanadium, and zinc					
² In Option Periods 1 and 2, this sampling event will also include physical habitat, macroinvertebrate, and fish community assemblage sampling at select locations outlined in Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology. (see Table 3 below)					

Table 3. Sampling and Monitoring Schedule for Option Periods 1 and 2	
SAMPLING AND MONITORING SCHEDULE:	OPTION PERIODS 1 AND 2 (see Table 2 above)
HYDROLOGIC PERIOD TO CAPTURE:	Base Flow – Late Summer to early Fall (see Table 2 above)
BENTHOS¹ – metals	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
FISH TISSUE¹ – metals	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
BIOLOGICAL COMMUNITY – benthic macroinvertebrate	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
BIOLOGICAL COMMUNITY–fish populations	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
PHYSICAL HABITAT	See Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
IN-SITU	Collected at time of biological sampling.
FLOW	Collected at time of biological sampling. Provided via the nearest USGS gaging stations. Flow using handheld device to be collected at Animas at Bakers Bridge, McElmo Creek, Chinle, Montezuma, Chaco River, and Mancos River.
¹ Aluminum, antimony, arsenic, cadmium, chromium, copper, iron, lead, magnesium, mercury, nickel, selenium, silver, tin, vanadium, and zinc	

Deliverables and Schedule under Task 5:

Task	Deliverable	Due
5.a	First draft of sampling schedule	First draft due April 1, 2018 or later per technical direction (per Contract Clause H.12). Revisions per technical direction (per Contract Clause H.12). Revisions are required until the field sampling is complete.
5.b	Assessment of sites scheduled prior to each sampling event.	30 days prior to each field sampling event or later per technical direction (per Contract Clause H.12). Revisions per technical direction (per Contract Clause H.12)
5.c	Notification of site conditions if they are not conducive to sampling	As soon as possible per availability of phone or email access.

Task 6. Preparation for Field Sampling (See Contract PWS C.2)

The contractor shall prepare for field sampling visits as follows:

- a. The contractor shall be responsible for providing consumable materials as described in the QAPPs and the Standard Operating Procedures. These materials include but are not limited to sampling containers, and sampling equipment, e.g., filters for dissolved samples, preservatives, Teflon scoops, shipping materials.
- b. The contractor shall be responsible for arranging for and supply vehicles, staff, and all necessary non-consumable equipment to the field crews including, but not limited to, boats, safety equipment, multi-probes instrumentation, fish shocking equipment, appropriate devices for electronic data capture (if applicable), storm water collection equipment such as ISCO samplers, and GPS devices.

Deliverables and Schedule under Task 6:

Task	Deliverable	Due
6.a	Consumable supplies	During field sampling visits
6.b	Supply equipment	During field sampling visits

Task 7. Field Sampling Visits (See Contract PWS C.2)

The contractor shall complete the field sampling visits during the periods identified in Table 2, unless the EPA TOCOR provides technical direction (per Contract Clause H.12) to sample outside these time periods. For each field sampling visit, the contractor shall adhere to EPA's specified sampling methods outlined in the Quality Assurance/Quality Control requirements described in the QAPPs and Standard Operating Procedures. The EPA Region 7 lab will be

responsible for all analysis. As mentioned in Task 8, the contractor will be responsible for coordinating with the Region 7 lab and adhering to their processes. The contractor shall provide the following:

- a. To record observations and sample information, the contractor shall use standardized field forms on paper. The contractor will be responsible for providing field forms. Should the contractor be tasked with using an EPA-developed standardized field form for activities such as physical habitat assessment, macroinvertebrate or fish communities, EPA will provide the paper field forms for the specific field activity. If the contractor is using a hard copy, the contractor shall submit a pdf of the form via email to EPA.
- b. Prior to sample shipment, the contractor shall coordinate with the lab conducting the analysis and obtain information on the chain-of-custody (COC) form provided by the lab. The contractor then shall ship samples to the analytical laboratory.

Deliverables and Schedule under Task 7:

Task	Deliverable	Due
7a	Field Form for approval by the TOCOR	Two weeks prior to field sampling
7.b	Upload/Transmit forms and confirm transmittal/delivery was complete	As soon as possible (may vary depending on internet access and requirements in the 2017 FOM).
7.c	Ship samples and COC forms	Per QAPP.

Task 8. Post-Sampling Activities

The contractor shall perform any post-sampling requirements specified in permits. The contractor shall make field crews available to respond to EPA's post-sampling questions about the field sampling observations and procedures that might affect the data values and quality. If questions come from sources other than the EPA TOCOR (e.g., jurisdictions involved in this effort), contact the EPA TOCOR to coordinate the response or provide a summary by email (e.g., if the questions were posed through telephone conversations).

Unless the TOCOR grants an exception, the contractor shall refrain from publishing findings based upon work conducted under this task order. This restriction shall remain in effect until EPA provides public access to the data.

Once the EPA Region 7 lab has completed the analysis, the contractor will receive the lab results in a Microsoft Excel compatible format. The contractor shall conduct a review of the lab results, coordinate with EPA to share the lab results with the jurisdictions, and upload the results into the Water Quality Portal via the Water Quality Exchange. If the lab provides the contractor with lab results in a format not compatible with the Water Quality Exchange, it will be the responsibility of the contractor to format the data in a compatible format. The contractor shall be responsible for ensuring that the data is uploaded into WQX with the following information: Project ID

Animas_SanJuan_Watershed; Project Name: Animas San Juan Watershed; and Project Description: Monitoring performed in the Animas and San Juan Watershed. All macroinvertebrate and fish community data and physical / habitat data, the contractor shall be responsible for coordinating with EPA to have this data uploaded into the National Aquatic Resource Survey database.

Deliverables and Schedule under Task 8:

Task	Deliverable	Due
8a	Confirmation that actions required by permits have been completed	With monthly progress report
8b	Email responding to data questions	Within 5 working days, if field crew is available. Otherwise, provide email within 5 days with expected response date.
8c	Conduct review of the lab results	Within 15 working days of receiving the file from the lab.
8d	Coordinate with EPA to share lab results with the jurisdictions	Within 5 days of completing the contractor review
8e	Upload all field in-situ surface water measurements, water chemistry and sediment chemistry lab results into the Water Quality Portal	Within 5 days of completing all reviews
8f	Assist EPA to upload habitat data into the National Aquatic Resource Survey database	Within 5 days of completing reviews

Task 9. Meeting Support – Field Demonstration and Presentation

The contractor shall provide support for the Water Resources Research Institute (WRI) annual meeting that will focus on the San Juan Watershed Success and Challenges. This support shall include: participation in planning meetings; develop and deliver a field demonstration of the water quality and sediment sampling techniques to meeting participants, prepare and deliver a presentation on the San Juan Watershed monitoring program at the meeting. In addition, the contractor shall be available to discuss the San Juan Watershed sampling program during a technical exchange meeting with the states and tribes. This technical exchange will occur the day before the annual WRI meeting held in Farmington, NM in June.

Deliverables and Schedule under Task 9:

Task	Deliverable	Due
9	Field demonstration of water quality and sampling techniques	June 2019
9	Presentation on San Juan Watershed monitoring program	June 2019

TRAVEL

This section provides a summary of the travel requirements described in Section V. Assume each field crew contains 2 members. Here are assumptions to use in costing:

Task V.3 (Training) –

- All key personnel and crew members attend an EPA training prior to starting field sampling. (Actual training selected after award may differ from those used in this costing.)

Task V.7 (Sampling) – for every site,

- One field crew of 2 to 4 members travel to the site dependent upon sampling activity (e.g. fish tissue and physical habitat sampling will require more than a 2-member crew).
- Total of 39 site visits for each of the hydrological periods with the exception of 15 site visits for the storm event period identified in Table 2.
- Travel costs are minimized to the extent possible (e.g., combining nearby sites into one trip).

Task V.9 (Meeting Support) –

- One team member will travel to Farmington, NM

VI. Quality Assurance Surveillance Plan (QASP)

EPA will judge performance using the following Quality Assurance Surveillance Plan (QASP).

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
Management and Communications:	Any issue adversely impacting project schedules, cost, time or quality shall be	EPA TOCOR will identify unreported issues.	Four or more incidents where the contractor:

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
The Contractor shall maintain contact with the EPA TOCOR throughout the performance of the task order and shall immediately bring potential problems to the attention of the EPA TOCOR. In cases where issues have a direct impact on field sampling activities, project schedules (i.e., not each sampling event), cost, time, or quality, the contractor shall provide options for EPA's consideration on resolving the issues or mitigating their impacts.	<p>brought to the attention of the EPA TOCOR:</p> <p>i) If the contractor requires EPA guidance during a sampling event, the contractor must contact EPA prior to completing the sampling activities.</p> <p>ii) If the contractor identifies an issue that could affect multiple crews, the contractor shall contact EPA that day so that direction can be provided to all crews in the field.</p> <p>iii) If the contractor identifies sampling issues that are otherwise not urgent, the contractor shall contact EPA within 5 working days.</p>		<ul style="list-style-type: none"> • Does not provide timely notification; or • Created a severe adverse situation <p>will be considered unsatisfactory performance and will be reported as such in the CPARS Performance Evaluation System under the category of Management.</p> <p>Fewer than four incidents where the contractor does not meet the measureable performance standard will be considered acceptable performance and will be reported as such in the CPARS Performance Evaluation System under the category of Management.</p>
Completeness: Samples, site evaluation spreadsheets, tracking forms and completed field sampling data forms shall be delivered in accordance with the	100% of the samples shall be transmitted in accordance with the QAPP protocols for shipping. Excessive breakage or spoilage will count as a failure of sample delivery, if breakage/spoilage is	100% of the lab delivery reports, spreadsheets, and field forms will be reviewed by the EPA TOCOR at the end of each hydrologic sampling to compare actual	10 or more incidents where the contractor does not meet the measureable performance will be considered unsatisfactory performance and will be reported as such in the CPARS Performance Evaluation System under

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
requirements of the QAPP	<p>a result of failing to follow the QAPP protocols for shipping.</p> <p>No more than 10% of the spreadsheets and field sampling forms shall be submitted more than 5 working days past the requirements in the long-term monitoring plan. If the field form or spreadsheet has not been completed correctly, it will be considered a failure of completeness.</p>	delivery dates against the requirements in the QAPP and long-term monitoring plan.	<p>the category of Schedule.</p> <p>Fewer than ten incidents where the contractor does not meet the measureable performance standard will be considered acceptable performance and will be reported as such in the CPARS Performance Evaluation System.</p>
<p>Cost Management and Control:</p> <p>The Contractor shall monitor, track, and accurately report cost and fee expenditures to EPA through progress reports and approved special reporting requirements. The Contractor shall assign appropriately leveled and skilled personnel to all tasks, practice and encourage time management, and ensure accurate and</p>	The contractor shall manage costs to the level of approved ceiling on the task order. The contractor shall notify the TOCOR, PO and CO when 75% of the approved funding ceiling for the task order is reached.	The TOCOR will compare actual versus projected expenditures on a monthly basis (via meetings, monthly progress reports & milestones established for each deliverable).	<p>Unsatisfactory rating under the category of Cost Control in CPARS when the contractor does not meet the measurable performance standards.</p> <p>An acceptable rating will be reported in the CPARS Performance Evaluation System under the category of Cost Control if the contractor meets the measureable performance standards and accurately reports the costs.</p>

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
appropriate cost control.			
Technical Effort: The Contractor shall assign appropriately leveled and skilled personnel to all tasks; and abide by the contractor's QMP, long-term monitoring plan, and QAPP.	No more than 25% of reviewed deliverables and data shall require revisions to meet the requirements. All of the assigned staff must meet the requirements in the long-term monitoring plan, and QAPP.	100% of the data and staffing will be reviewed by the EPA TOCOR to identify noncompliance issues.	Unsatisfactory rating under the category of Quality in CPARS when the contractor does not meet the measurable performance standards during an applicable period of performance.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES										
					1 5										
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)									
P00004		See Block 16C		PR-OW-19-00558											
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE									
CAD															
CAD															
US Environmental Protection Agency															
26 West Martin Luther King Drive															
Mail Code: W136															
Cincinnati OH 45268-0001															
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)											
ESS GROUP, INC.				9A. AMENDMENT OF SOLICITATION NO.											
Attn: ROBERT ERICKSON															
10 HEMINGWAY DR # 2				9B. DATED (SEE ITEM 11)											
RIVERSIDE RI 02915															
				x											
				10A. MODIFICATION OF CONTRACT/ORDER NO.											
				EP-C-16-006											
				68HE0C18F0817											
				10B. DATED (SEE ITEM 13)											
				07/20/2018											
CODE 019131986		FACILITY CODE													
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS															
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.															
12. ACCOUNTING AND APPROPRIATION DATA (If required)				(b)(4)											
See Schedule															
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td style="text-align: center;">x</td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Bilateral - Changes - FAR 52.243-2 Changes - Cost-Reimbursement (Alt.2)</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> </table>								CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Bilateral - Changes - FAR 52.243-2 Changes - Cost-Reimbursement (Alt.2)		D. OTHER (Specify type of modification and authority)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.														
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).														
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Bilateral - Changes - FAR 52.243-2 Changes - Cost-Reimbursement (Alt.2)														
	D. OTHER (Specify type of modification and authority)														
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.															
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)															
DUNS Number: 019131986															
The Purpose of this Modification is to:															
1. Decrease the total cost of this Task Order to account for the need to decrease scope related to fish community assemblage sampling from Option Periods 1 and 2, increase scope to allow for the completion of Performance Work Statement (PWS), Option Period 2, additional costs for containers and coordination/logistics with multiple EPA labs to complete water quality sampling, and to allow for additional costs associated with field training for benthic and physical habitat methods as part of sampling. This Modification results in a (b)(4)															
(b)(4) to Option Period 1. This results in a new total cost plus fixed															
Continued ...															
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.															
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)											
				Nicholas Bisher											
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED									
(Signature of person authorized to sign)				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 10/09/2019									

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-16-006/68HE0C18F0817/P00004PAGE OF
2 5NAME OF OFFEROR OR CONTRACTOR
ESS GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	(b)(4)				
	(b)(4) The new total Task Order cost plus fixed amount is (b)(4)				
	2. This Modification (b)(4)				
	(b)(4) which is an unliquidated obligation on an expired period. The cost/fixed fee ceiling remains unchanged in the event that there is a trailing cost.				
	(b)(4)				
	TOCOR: Shera Reems Max Expire Date: 01/31/2021 InvoiceApprover: Shera Reems Alt Invoice App: Forrest John LIST OF CHANGES: Reason for Modification: Supplemental Agreement for work within scope Total Amount for this Modification: (b)(4) New Total Amount for this Version: (b)(4) New Total Amount for this Award: (b)(4) Obligated Amount for this Modification: (b)(4) New Total Obligated Amount for this Award: (b)(4)				
	CHANGES FOR LINE ITEM NUMBER: 9999				
	NEW ACCOUNTING CODE ADDED: Account code: 19-E4-87FL-000BL7-2505 Beginning FiscalYear 19 Ending Fiscal Year Fund (Appropriation) E4 Budget Organization 87FL Program (PRC) 000BL7 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID Quantity: 0 Amount: \$0.00 Percent: 0 Subject To Funding: N Continued ...				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-16-006/68HE0C18F0817/P00004PAGE OF
3 5NAME OF OFFEROR OR CONTRACTOR
ESS GROUP, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Payment Address:</p> <p>CHANGES FOR LINE ITEM NUMBER: 1 Obligated Amount for this Modification: (b)(4) Incremental Funded Amount changed to (b)(4)</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 Total Amount changed (b)(4)</p> <p>CHANGES FOR DELIVERY LOCATION: CPOD (b)(4)</p> <p>CHANGES FOR ACCOUNTING CODE: 18-E4-87FL-000BL7-2505-1987LE9001-001 (b)(4)</p> <p>CHANGES FOR LINE ITEM NUMBER: 3 Total Amount changed (b)(4)</p> <p>CHANGES FOR DELIVERY LOCATION: CPOD (b)(4)</p> <p>Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 07/20/2018 to 01/31/2020 All other terms and conditions remain unchanged</p>				

**Performance Work Statement
NARS2 Contract
EP-C-16-006/ 68HE0C18F0817**

A. TITLE: San Juan Watershed Monitoring Program

B. EPA PERSONNEL

Task Order Contracting Officer Representative (TOCOR):

Name: Shera Reems
Office: EPA Region 8, Office of Water Protection
Address: 1595 Wynkoop Street, Denver, CO 80202-1129
Telephone: 303-312-6888
E-mail: reems.shera@epa.gov

Alternate Task Order Contracting Officer Representative (TOCOR):

Name: Forrest John
Office: EPA R6, Water Division
Address: 1445 Ross Avenue, Dallas, TX, 75202
Telephone: 214-665-8368
E-mail: john.forrest@epa.gov

C. ESTIMATED PERIOD OF PERFORMANCE

Base Period: Award Date through January 31, 2019
Option Period 1: February 1, 2019 through January 31, 2020
Option Period 2: February 1, 2020 through January 31, 2021

D. TYPE OF TASK ORDER: Cost plus Fixed Fee (CPFF)

I. BACKGROUND:

As part of the San Juan Watershed Monitoring Program, EPA, in collaboration with the jurisdictions of Arizona, Colorado, New Mexico, Utah, Navajo Nation, Southern Ute, and Ute Mountain Ute, are implementing the San Juan Watershed Long-Term Monitoring Plan. The San Juan Watershed Long-Term Monitoring Plan is designed to:

1. Implement a consistent approach to data collection and assessment of the water quality conditions in the San Juan Watershed and encompassing rivers (Animas and San Juan Rivers and Lake Powell);
2. Characterize water and sediment quality under the primary hydrologic regimes of spring runoff, summer base flow, fall monsoons, and winter low-flow conditions;
3. Share collected water quality data with the public;
4. Communicate to the public the water quality conditions in the San Juan Watershed; and
5. Guide management actions.

The candidate sites are located throughout the San Juan Watershed. EPA, in collaboration with the jurisdictions, have identified 39 monitoring locations along Cement Creek, Mineral Creek, the Animas River, the San Juan River, various tributaries and diversion canals, and the Colorado River immediately below Lake Powell. In collaboration with the jurisdictions, water chemistry and sediment sampling will occur in the Base Year. This sampling will be conducted at the 39 sampling locations identified in Table 1 for the proposed monitoring parameters and timeline provided in Table 2, Task 5. In Option Periods 1 and 2 of this performance work statement, water chemistry and sediment sampling will continue at the 39 sampling locations identified in Table 1 and for the proposed monitoring parameters and timeline provided in Tables 2 and 3, Task 5, and include physical habitat and benthic, macroinvertebrate, and fish community and assemblage sampling at select locations outlined in Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology. Option Periods 1 and 2 work is dependent upon WIIN Act Appropriations.

Table 1 provides a list of sampling locations for the monitoring described in this plan. Figure 2 displays location of each sample site within the San Juan Watershed.

Table 1. List of Sampling Locations

Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
1	CDPHE	9488	EPA A68 (13.90) USGS 09358000 (13.90)	37.811202	-107.659167	Animas Above Cement	Main (above Cement)
2	CDPHE	9447	EPA M34 USGS 9359010	37.8028	-107.67222	Mineral Creek	Tributary to Animas
3	CDPHE	CEM49	EPA CC48 (12.54) USGS 09358550 (12.41)	37.819984	-107.663275	Cement Creek at Silverton CO	Main
4	CDPHE	82	EPA A72 (16.35) USGS 09359020 (16.34) RCWWN 3579 (15.88)	37.79027	-107.667578	Animas Below Silverton	Main
5	CDPHE	81	EPA Bakers Bridge (64.02) EPA GKM02 (63.83) RCWWN 3611 (16.4)	37.45844	-107.7997567	Animas River at Bakers Bridge	Main
6	CDPHE	9423A	EPA Rotary Park (94.24) EPA GKM05 (96.66) USGS GAGE RCWWN 3576 (93.83)	37.27456333	-107.8842733	Animas River at 9th Street	Main
7	SUIT	AR 19-3 (NAR1)	EPA GKM01 (103.16) CDPHE 9420C (103.16)	37.213842	-107.854161	Animas River at Southern Ute Tribe AR19-3	Main
8	SUIT	NAR 6	EPA AR2 7-a (130.65)	37.02342	-107.87387		Main
9	NMED	66Animas057.0	None	36.983263	-107.86758	Animas River below state line (Estes Arroyo to SUIT boundary)	Main

Table 1. List of Sampling Locations

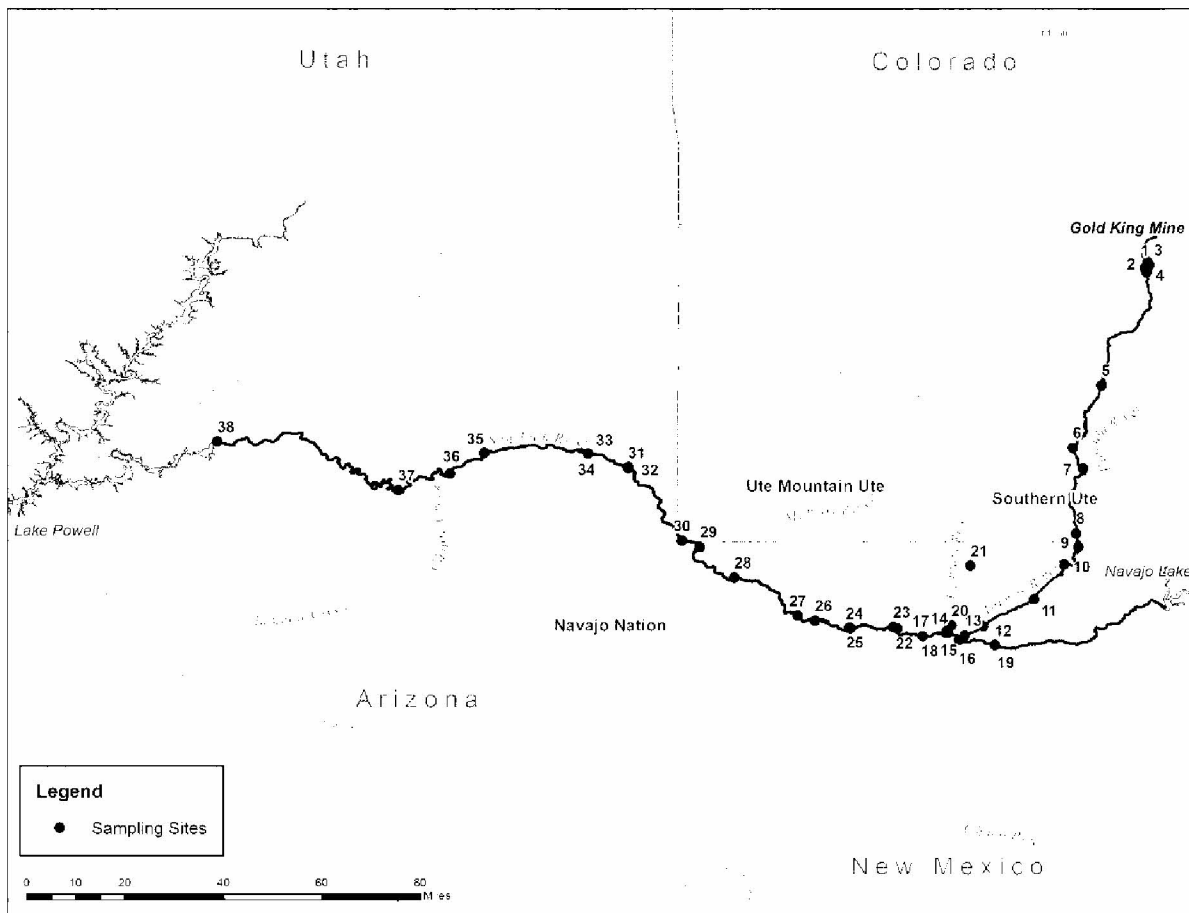
Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
10	EPA	ADW-022		36.9333	-107.90907	Aztec domestic water system, Intake Sampling Location	Main
11	NMED	66Animas028.1 (ANIMASAB)	EPA ADW010 (162.87)	36.82949	-107.997663	Animas River above Estes Arroyo, near Aztec	Main
12	NMED	66Animas009.8	EPA MW 020 (178.69)	36.750231	-108.146982	Animas River at CR 5000 above Farmington	Main
13	NMED	66Animas001.7 (ANIMASFM)	USGS 0936500 (192.96) EPA FW040 (190.16)	36.72303	-108.201611	Animas River at Boyd Park in Farmington	Main
14	NMED	66SanJua100.2	EPA LVW-020 (196.05)	36.730556	-108.251046	Lower valley water users association, Intake Sampling Location	Main
15	NNEPA	10FRUCANAL40	None	36.73082	-108.25602	Fruitland Canal @ first bridge downstream from headgate	CANAL
16	NMED	64SanJua101.6		36.711038	-108.218042	San Juan River above Animas River	Main
17	NMED NNEPA	67SanJua096.3 10SANJUANR37	EPA SJLP (196.87)	36.73588701	-108.2539868	San Juan River DS of the Animas confluence	Main
18	NMED	67SanJua088.1 (SJLION)	EPA LVW-030 (204.48)	36.722136	-108.325619	San Juan River at Lions Park near Kirtland	Main
19	NMED	64Galleg000.4		36.695866	-108.1125	Gallegos Canyon at San Juan River	Tributary to SJ
20	NMED	67LaPlat002.3		36.75252	-108.24047	La Plata River at Farmington City Park	Tributary to SJ
21	NMED	67LaPlat024.8		36.9289	-108.184698	La Plata River at La Plata, NM	Tributary to SJ
22	NMED	67Steven000.7		36.744115	-108.400245	Stevens Arroyo below CR 6100	Tributary to SJ
23	NNEPA	10SANJUANR38	EPA SJFP (214.43)	36.7482	-108.41163	San Juan River upstream from PNM fish passage	Main
24	NNEPA	NNEPA-10SANJUANR25	EPA SJHB (227.66) USGS 364446108321510 (227.61)	36.7454628	-108.5378488	San Juan River @ the bottom of the Hogback fish passage	Main
25	NNEPA	10HOGBACKC4 2	see above	36.74632	-108.54147	Hogback Canal between head gate and first waste way	CANAL
26	NNEPA	06CHACORIV04	None	36.76674	-108.64237	Chaco River near mouth	Tributary to SJ

Table 1. List of Sampling Locations

Index	Nominating Jurisdiction	Site ID	Nearby Sampling Locations	Latitude	Longitude	Description/Location	Site Type
27	NNEPA	10SANJUANR36	EPA SJSR (246.34) USGS 09368000 (246.12)	36.78157	-108.69281	San Juan River at Shiprock bridge	Main
28	NNEPA	10SANJUANR26	EPA SJDS (272.48)	36.89325249	-108.8785948	San Juan River 15 miles downstream from Shiprock	Main
29	NNEPA	07MANCOSRIO 1	None	36.98314479	-108.9797495	Mancos River near mouth	Tributary to SJ
30	UDEQ NNEPA	UDEQ 4954000 NNEPA- 02SANJUANR06	EPA SJ4C (295.83) UMUT SJ-4C (298.49) USGS 09371010 (298.53)	37.001755	-109.032726	San Juan River at US160 Xing in CO	Main
31	NNEPA	NNEPA 02SANJUANR09	EPA SJME (333.21)	37.215946	-109.192054	San Juan River at McElmo Wash	Main
32	UDEQ NNEPA	UDEQ 4953880 NNEPA 04MCELMOCRO 1	EPA MECT (332.89)	37.21868389	-109.1904117	McElmo Creek at Highway U262 Xing	Tributary to SJ
33	UDEQ NNEPA	UDEQ 4953990 NNEPA 02SANJUANR07	EPA SJMC (345.80)	37.257788	-109.30975	San Juan River at U262 Xing Phillips Camp Road Xing (San Juan River at Town of Montezuma)	Main
34	UDEQ	4953560	EPA SJMC (345.80) NNEPA-02SANJUANR07 (345.80)	37.272086	-109.327694	Montezuma Creek at U163 Xing	Tributary to SJ
35	UDEQ NNEPA	UDEQ 4953250 NNEPA 02SANJUANR08	EPA SJBB (377.62)	37.26027863	-109.6137343	San Juan River at Sand Island or San Juan at Bluff Bridge	Main
36	UDEQ NNEPA	UDEQ 4953020 NNEPA 01CHINLECR27	None	37.199119	-109.715572	Chinle Creek Above Confluence with San Juan River	Tributary to SJ
37	UDEQ NNEPA	UDEQ 4953000 NNEPA 29SANJUANR05	EPA SJMH (421.33) USGS 09379500 (420.92)	37.150758	-109.867672	San Juan River at Mexican Hat US163 Xing	Main
38	UDEQ	4952942	EPA SJCH (510.74)	37.293008	-110.399621	San Juan River at Clay Hills boat ramp	Main
39	Arizona	CGCLR713.70	Boat Ramp	36.921667	-111.483611	USGS Gage 09379910 at Lees Ferry	CO River

Key to jurisdictions: CDPHE = Colorado Department of Public Health and Environment; SUIT = Southern Ute Indian Tribe; NMED = New Mexico Environment Department; NN = Navajo Nation; UDEQ = Utah Department of Environmental Quality; Arizona = Arizona Department of Environmental Quality.

Figure 2. Location of sampling sites within the San Juan Watershed.



The contractor will follow the Long-Term Monitoring Plan and QAPP that was developed under a separate contract.

In year 1, the contractor will be responsible for working with EPA to develop a standardized field form for water chemistry and sediment. The contractor shall work with the EPA to ensure that a unique identifier (site ID) is created. The contractor will be responsible for providing field forms. Should the contractor be tasked with using an EPA-developed standardized field form for activities such as physical habitat assessment and benthic- macroinvertebrate sampling, or fish communities, EPA will provide the paper field forms for the specific field activity. The contractor shall submit a pdf of the form via email to EPA.

As another step in ensuring that all crews consistently apply the field protocols, EPA will arrange for training in the protocols outlined in the QAPP and an assistance visit (AV) during the crew's initial sampling visits. AVs will be conducted by EPA staff who have attended an EPA-

sponsored training or served as trainers. By having AVs early, the crew can incorporate corrective actions into sampling at the majority of their assigned sites.

II. PURPOSE

The purpose of this task order is to provide field sampling support to the EPA Office of Water in implementing the San Juan Watershed Long-Term Monitoring Plan. In particular, the contractor will schedule and deploy field crews to collect samples and observational data at selected sites in the San Juan Watershed. The contract field crews shall adhere to strict quality assurance and quality control (QA/QC) requirements, including attendance at a training provided by EPA; use of appropriate supplies and equipment; adherence to all shipping and logistical procedures; participation in quality assurance assistance visits; and adherence to data reporting requirements and deadlines as outlined in the long-term monitoring plan and QAPP.

III. GOVERNMENT FURNISHED INFORMATION

The EPA TOCOR will provide the following references via email.

- Reference 1: San Juan Watershed: Long-Term Monitoring Plan for Surface Water, Sediment, and Biology – DRAFT
- Reference 2: Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Surface Water and Sediment (QAPP) – DRAFT
- Reference 3: Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology (QAPP) – DRAFT
- Reference 4: NRSA 2013-2014 Field Forms
 - For field activities during which EPA National Rivers and Streams Protocols are employed, such as physical habitat assessment and benthic- macroinvertebrate sampling, ~~and fish community and assemblage~~, EPA will provide the contractor with paper forms during the task order's period of performance. The contractor shall work with the EPA to ensure that a unique identifier (site ID) is created.

During the period of performance, EPA will provide the contractor with:

- Training for the contractor's field crews in the summer of 2018 and spring of 2019.

IV. GENERAL REQUIREMENTS

In providing support under the tasks described in Section V, the contractor also shall adhere to the following general requirements:

1. Deliverables (see Contract PWS B.1)

Memoranda shall be placed on company letterhead and the subject line shall include the phrase "EPA Contract EP-C-16-0XX". When transmitting deliverables by email, subject headers should

include the contract, task order, and deliverable description (e.g., “EP-C-16-0XX TO X: QAPP Signature Pages”).

All electronic files shall be clearly named using the San Juan Watershed abbreviation, a logical abbreviation for the name of the document (e.g., QAPP), the contractor name (abbreviated), and the date of edits to assist in version control (e.g., SJW18_QAPP_XX_YYYYMMDD). Final versions shall be provided to EPA in both the original format (e.g., Word, PowerPoint) and PDF versions (if necessary, EPA will modify the files to be Section 508 compliant).

Unless specified differently by the EPA TOCOR in technical direction (per Contract Clause H.12), the contractor shall ensure that documentation is created using Agency standard software formats (e.g., Microsoft Office) to facilitate EPA use and review.

2. Meetings (see Contract Clause C.2)

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency’s official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

V. SCOPE OF WORK

Task 1. Monthly progress reports (See Contract Attachment 3; PWS C.3)

The contractor shall manage the Task Order (TO) and submit monthly progress and financial reports prepared and submitted in accordance with the contract clause, Attachment 3, Reports of Work. The monthly progress and financial reports shall be broken out by task. The monthly progress report shall include project status, number of sites sampled (current and cumulative), identify sites sampled during the reporting period, unexpected problems or concerns, lessons learned, QA/QC activities, and next steps. The contractor also shall brief the TOCOR on progress during periodic (e.g., weekly) teleconferences during periods of intense activity.

Deliverables and Schedule under Task 1:

Task	Deliverable	Due
1	Progress and financial reports	Monthly
	Calls with EPA	Per technical direction (per Contract Clause H.12)

Task 2. Quality Assurance (Contract PWS B.2, C.1.g)

Quality Assurance (QA) is an important component of EPA’s work to assure that minimum quality standards are attained. The contractor shall address the QA requirements of this task order by adhering to the requirements and procedures identified in:

- The contractor’s customized Quality Management Plan incorporated into this NARS contract;

- San Juan Watershed Long-Term Monitoring Plan QA documents which document how quality assurance and quality control will be applied to the collection of environmental data for the survey. The documents relevant to support in this task order are:
 - Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Surface Water and Sediment
 - Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology
 - San Juan Watershed: Long-Term Monitoring Plan for Surface Water, Sediment, and Biology

As demonstration of the contractor's:

- a. Commitment to adhere to the San Juan Watershed QAPPs, the contractor shall:
 - Ensure that all sampling personnel have reviewed and understand the requirements and procedures of the San Juan Watershed QAPPs, and Long-Term Monitoring Plan, which will be available prior to the field crew training session. The certification page entitled "Review & Distribution Acknowledgment and Commitment to Implement" is located in the introductory section of the QAPPs.
 - At a minimum, the following personnel shall sign the certification page for the QAPPs approved by EPA's Quality Assurance Officer:
 - Contractor's Task Order Leader
 - Contractor's Quality Assurance Officer,
 - **The crew leader must provide the signed certification page before the crew may commence with sampling events.**
 - At the contractor's discretion, it may also be appropriate for each field crew member to sign the certification page and transmit to EPA.
 - The contractor's QAO also shall sign the certification page for each revision of the QAPP that has been approved by EPA's QAO.
 - If EPA distributes updated versions of the QA documents and states that it contains a "significant change" relevant to field sampling, the contractor shall acknowledge, in writing (e.g., Email), that it has received and distributed the revised QA documents and other documents as necessary to the appropriate personnel. If any change will impact the scope and/or cost of the task order, the contractor shall notify the TOCOR and CO immediately.
- b. **Additional Key Personnel (EPAAR 1552.237-72) field crew leader (Task 7).** At a minimum, the field crew leader shall have at least three years of experience in leading field crews; and at least three years of experience in collecting water and sediment samples and conducting physical habitat sampling ~~or fish sampling~~ from rivers or streams; and experience collecting flow measurements using handheld flow measuring devices.
- c. **Permit EPA to perform an AV of its field crews during an early sampling event (e.g., the first sampling event by a crew, if possible).** The contractor shall coordinate with EPA, or its designee, on an agreed upon date and location for the AV. EPA will conduct the AV using a checklist provided by EPA, supplemented by photographs if

appropriate (e.g., to record a deviation in methods due to extenuating circumstances). Although EPA will arrange for the AVs, it is the contractor's responsibility to ensure that the contractor field crew is abiding by the requirements and procedures of the QAPP. Should a new crew leader or crews be assigned to this work, it is the contractor's responsibility to reach out to EPA to coordinate with EPA to perform an AV of the new field crew.

- b. Implementation of QA in performing the other tasks in this PWS, the contractor shall document its QA activities as follows:
 - Reports of relevant QA activities in any deliverable. All QA documentation prepared under the task order shall be considered non-proprietary, except for the internal distribution list which may be claimed proprietary.
 - Monthly reports of QA activities performed during implementation of this task order. These monthly QA reports shall identify QA activities performed to support implementation of this task order, problems encountered, deviations from the San Juan Watershed QAPPs, and corrective actions taken. The contractor shall include the QA report with the monthly progress report. In addition, the contractor shall immediately bring to the attention of the TOCOR any QA problems that may affect the conduct of the tasks or the project, with recommendations for corrective actions.
- c. Commitment to continuous quality improvements, the contractor shall provide summaries of "lessons learned" based upon its support to the other tasks. EPA will use this information to improve future monitoring conducted under the San Juan Watershed Monitoring Program. The contractor shall incorporate EPA comments into revised versions.

Deliverables and Schedule under Task 2:

Task	Deliverable	Due
2	Signature page for each version of QAPP approved by EPA's QAO:	
	- With contractor's QAO and Task Order Leader signatures.	- No later than 5 working days after receiving the approved QAPP with EPA QAO's signature
	- With crew leader signature	- At training
	Email acknowledgement of QA documents with "significant change"	No later than 10 working days after receiving revised QA document
2	Memo with qualifications of field crew members, other than the field crew leader	With first draft of the schedule for field crew for the schedule outlined in the long-term monitoring plan. Unless circumstances change unexpectedly, qualifications of replacements, except key

Task	Deliverable	Due
		personnel, must be submitted at least one week prior to the sampling event. See key personnel clause for process for replacements through a task order modification.
2	Email with outcome of testing field forms with any recommended changes (applicable to EPA-provided forms, only)	5 working days after receiving the first electronic/paper version of field forms. 1-5 working days after receiving subsequent versions, depending on extent of revision and schedule implications.
2	Access to contractor's calibration and maintenance records	Within 5 working days after receiving technical direction (per Contract Clause H.12)
2	Allow access for EPA or its designee to conduct an assistance visit to each field crew	Per technical direction (per Contract Clause H.12), based upon scheduling discussions occurring prior to the crews first sampling event
2	Documentation of QA activities	In deliverables
2	Monthly reports of QA activities	With monthly progress report
2	Memorandum 1 with lessons learned for 2018 data collection	April 15, 2019. Revisions within 5 work days.
	Memorandum 2 with lessons learned for 2019 data collection	April 15, 2020. Revisions within 5 work days.
	Memorandum 3 with lessons learned in 2020 data collection	April 15, 2021. Revisions within 5 work days.

Task 3. Field Training

EPA will host a San Juan Watershed training session during the summer of calendar year 2018 and ~~spring-fall~~ of calendar year 2019. For purposes of preparing the proposal response, the contractor shall use Golden, Colorado as the training site, which is near the Region 8 lab. The fall 2019 training will coincide with the late summer / early fall routine sampling event. The training will provide detailed instructions on the prescribed sampling methods for the San Juan Watershed long-term monitoring plan participants. The training may include up to three 2-hour webinars (e.g., overview and forms) and up to 1 to 2 days of combined classroom and field training. It is preferable that all crew members participate in training activities, but at a minimum the contractor shall ensure that the field crew leader participate in a training session unless the EPA TOCOR issues technical direction (per Contract Clause H.12). The contractor shall report out, each month, on any associated training costs (e.g., travel and LOE) broken out by training using the template provided by the EPA TOCOR.

1. Deliverables and Schedule under Task 3:

Task	Deliverable	Due
3	Attend training	Prior to first sampling event
3	Report out on costs associated with attending EPA Long-Term Monitoring Program trainings	With monthly progress report

Task 4. Pre-Sampling Site Evaluation (See Contract PWS C.1)

Table 1 identifies the sampling sites assigned to the contractor.

As part of the evaluation process, the contractor shall obtain the proper collection permit and/or landowner permission to sample sites, where necessary. It is imperative for the integrity of this long-term monitoring program that a thorough effort is made to gain permission to sample sites. For each field season, the contractor shall provide a summary of the permits that includes the following information:

- Site ID
- Name of Refuge/Park/Authority
- Agency
- Contact Information (for Agency)
- Date Approved (if available)
- Permit Number

Additionally:

- a. Unless directed otherwise by the TOCOR, the field crew shall provide notification to the TOCOR of a site not sampled and to determine if there is a replacement site.
- b. If the land is under control of a Tribe, the contractor shall receive prior approval from the EPA TOCOR **prior** to contacting any Tribal representatives or sampling the site.
- c. If the permit or any other requirements conflict with the study protocols, the contractor shall notify the EPA TOCOR who will decide whether the site should be retained or replaced.

Deliverables and Schedule under Task 4:

Task	Deliverable	Due
4	Summary of Permits	One month prior to the end of performance for the base period and OP1, and OP2.

Task	Deliverable	Due
	Email identifying Indian Tribe ownership of site	Within 2 working days of identification. (This notification is critical.)
	Email describing conflicts with study protocols	Within 2 working days of identification.

Task 5. Schedule (See Contract PWS C.2)

The purpose of the schedule is to ensure that the contractor **will sample sites during each of the hydrologic periods identified by the jurisdictions. See Table 2.** Prior to the start of each field season, EPA will provide details to the contractor regarding any priorities that must be taken into account in establishing the schedule (number of sites, order of sampling for specific years). As needed, the TOCOR shall issue technical direction related to this information. The contractor shall provide the following:

- a. Before the start of each field season, the contractor shall provide EPA with the first draft with tentative sampling dates and crew assignments for all sites. Throughout the monitoring schedule, the contractor shall revise the schedule to incorporate the EPA TOCOR's technical direction (per Contract Clause H.12) or mitigating factors, including, but not limited to, weather, field crew changes, and unanticipated delays.
- b. To support EPA's review of the draft schedule and revisions that affect early season sampling events, the contractor shall provide a written assessment of the expected conditions at the sites scheduled to be sampled prior to each hydrologic period sampling event. Only after receiving technical direction (per Contract Clause H.12) that approves the draft schedule and any revisions for sampling in May and June, shall the contractor arrange for travel to sites on the approved list. The contractor is responsible for providing EPA with a schedule of the sampling locations one week in advance of traveling to the field to conduct the work. Furthermore, the contractor shall be responsible for providing notice to jurisdictional authorities within two weeks prior to sampling on applicable jurisdictional sites. The contractor shall be responsible for providing notice to the lab within 30 days of the shipment of samples to be analyzed. This includes completing and submitting the requested forms and information.

TABLE 2. BASE PERIOD AND OPTION PERIODS 1 AND 2 SAMPLING AND MONITORING PARAMETERS AND TIMELINE.					
SAMPLING AND MONITORING SCHEDULE	FEBRUARY OR MARCH	MAY	JUNE	STORM EVENT JULY TO SEPT	AUGUST OR SEPTEMBER
BASE PERIOD (AWARD DATE TO JANUARY 31, 2019)				X (2018)	X (2018)
OPTION PERIOD 1 (FEBRUARY 1, 2019 TO JANUARY 31, 2020)	X (2019)	X (2019)	X (2019)	X (2019)	X (2019) ²
OPTION PERIOD 2 (FEBRUARY 1, 2020 TO JANUARY 31, 2021)	X (2020)	X (2020)	X (2020)	X (2020)	X (2020) ²
HYDROLOGIC PERIOD TO CAPTURE	Winter Low Flow	Spring Runoff (Rising Limb)	Spring Runoff (Peak Limb)	Monsoons	Late Summer Base Flow
WATER COLUMN - dissolved and total metals ¹ , dissolved organic carbon (DOC), total organic carbon (TOC), alkalinity, total suspended solids (TSS), total and dissolved hardness, sulfate, chloride	1 event	1 event	1 event	1 event	1 event
SEDIMENT – total metals ¹ , TOC, grain size	1 event	1 event	1 event		1 event
NUTRIENTS – total nitrogen, total phosphorus	1 event	1 event	1 event	1 event	1 event
BACTERIA – E. COLI	1 event	1 event	1 event		1 event
FIELD PARAMETERS	All sampling events will include field parameters (pH, temperature, dissolved oxygen, specific conductance and turbidity) measured with a data probe/sonde type instrumentation.				
FLOW	Provided via the nearest USGS gaging stations. Flow will be collected at Animas at Bakers Bridge, McElmo Creek, Chinle, Montezuma, Chaco River, and Mancos River.				
¹ Aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, chromium III, chromium VI, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, silver, sodium, strontium, thallium, uranium, vanadium, and zinc					
² In Option Periods 1 and 2, this sampling event will also include physical habitat and benthic; macroinvertebrate, and fish community assemblage sampling at select locations outlined in Appendix A in the Quality Assurance Project Plan for the San Juan Watershed: Long-Term Monitoring Plan for Biology. (see Table 3 below)					

Table 3. Sampling and Monitoring Schedule for Option Periods 1 and 2

SAMPLING AND MONITORING SCHEDULE:	OPTION PERIODS 1 AND 2 (see Table 2 above)
HYDROLOGIC PERIOD TO CAPTURE:	Base Flow – Late Summer to early Fall (see Table 2 above)
BENTHIC MACROINVERTEBRATE	14 Locations. See Table 5 in Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
PHYSICAL HABITAT	13 Locations. See Table 5 in Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
FIELD DOCUMENTATION & PHOTOGRAPHS	14 Locations. See Table 5 in Quality Assurance Project Plan for the San Juan Watershed: Long Term Monitoring Plan for Biology
Biological sampling to occur concurrent or in close timing with physical-chemical sampling	

Deliverables and Schedule under Task 5:

Task	Deliverable	Due
5.a	First draft of sampling schedule	First draft due April 1, 2018 or later per technical direction (per Contract Clause H.12). Revisions per technical direction (per Contract Clause H.12). Revisions are required until the field sampling is complete.
5.b	Assessment of sites scheduled prior to each sampling event.	30 days prior to each field sampling event or later per technical direction (per Contract Clause H.12). Revisions per technical direction (per Contract Clause H.12)
5.c	Notification of site conditions if they are not conducive to sampling	As soon as possible per availability of phone or email access.

Task 6. Preparation for Field Sampling (See Contract PWS C.2)

The contractor shall prepare for field sampling visits as follows:

- a. The contractor shall be responsible for providing consumable materials as described in the QAPPs and the Standard Operating Procedures. These materials include but are not limited to sampling containers, and sampling equipment, e.g., filters for dissolved samples, preservatives, Teflon scoops, shipping materials.
- b. The contractor shall be responsible for arranging for and supply vehicles, staff, and all necessary non-consumable equipment to the field crews including, but not limited to, boats, safety equipment, multi-probes instrumentation, ~~fish-shocking equipment~~, appropriate devices for electronic data capture (if applicable), storm water collection equipment such as ISCO samplers, and GPS devices.

Deliverables and Schedule under Task 6:

Task	Deliverable	Due
6.a	Consumable supplies	During field sampling visits
6.b	Supply equipment	During field sampling visits

Task 7. Field Sampling Visits (See Contract PWS C.2)

The contractor shall complete the field sampling visits during the periods identified in Table 2, unless the EPA TOCOR provides technical direction (per Contract Clause H.12) to sample outside these time periods. For each field sampling visit, the contractor shall adhere to EPA's specified sampling methods outlined in the Quality Assurance/Quality Control requirements described in the QAPPs and Standard Operating Procedures. The EPA Region 7 lab will be responsible for all analysis. As mentioned in Task 8, the contractor will be responsible for coordinating with the Region 7 lab and adhering to their processes. The contractor shall provide the following:

- a. To record observations and sample information, the contractor shall use standardized field forms on paper. The contractor will be responsible for providing field forms. Should the contractor be tasked with using an EPA-developed standardized field form for activities such as physical habitat assessment and benthic, macroinvertebrate, or fish communities, EPA will provide the paper field forms for the specific field activity. If the contractor is using a hard copy, the contractor shall submit a pdf of the form via email to EPA.
- b. Prior to sample shipment, the contractor shall coordinate with the lab conducting the analysis and obtain information on the chain-of-custody (COC) form provided by the lab. The contractor then shall ship samples to the analytical laboratory.

Deliverables and Schedule under Task 7:

Task	Deliverable	Due
7a	Field Form for approval by the TOCOR	Two weeks prior to field sampling
7.b	Upload/Transmit forms and confirm transmittal/delivery was complete	As soon as possible (may vary depending on internet access and requirements in the 2017 FOM).
7.c	Ship samples and COC forms	Per QAPP.

Task 8. Post-Sampling Activities

The contractor shall perform any post-sampling requirements specified in permits. The contractor shall make field crews available to respond to EPA's post-sampling questions about the field sampling observations and procedures that might affect the data values and quality. If questions come from sources other than the EPA TOCOR (e.g., jurisdictions involved in this effort), contact the EPA TOCOR to coordinate the response or provide a summary by email (e.g., if the questions were posed through telephone conversations).

Unless the TOCOR grants an exception, the contractor shall refrain from publishing findings based upon work conducted under this task order. This restriction shall remain in effect until EPA provides public access to the data.

Once the EPA Region 7 lab has completed the analysis, the contractor will receive the lab results in a Microsoft Excel compatible format. The contractor shall conduct a review of the lab results, coordinate with EPA to share the lab results with the jurisdictions, and upload the results into the Water Quality Portal via the Water Quality Exchange. If the lab provides the contractor with lab results in a format not compatible with the Water Quality Exchange, it will be the responsibility of the contractor to format the data in a compatible format. The contractor shall be responsible for ensuring that the water chemistry and sediment data is uploaded into WQX with the following information: Project ID Animas_SanJuan_Watershed; Project Name: Animas San Juan Watershed; and Project Description: Monitoring performed in the Animas and San Juan Watershed. ~~For All benthic macroinvertebrate and fish community data~~ and physical / habitat data, the contractor shall be responsible for coordinating with EPA to have this data uploaded into the National Aquatic Resource Survey IM database.

Deliverables and Schedule under Task 8:

Task	Deliverable	Due
8a	Confirmation that actions required by permits have been completed	With monthly progress report

Task	Deliverable	Due
8b	Email responding to data questions	Within 5 working days, if field crew is available. Otherwise, provide email within 5 days with expected response date.
8c	Conduct review of the lab results	Within 15 working days of receiving the file from the lab.
8d	Coordinate with EPA to share lab results with the jurisdictions	Within 5 days of completing the contractor review
8e	Upload all field in-situ surface water measurements, water chemistry and sediment chemistry lab results into the Water Quality Portal	Within 5 days of completing all reviews
8f	Assist EPA to upload habitat data into the National Aquatic Resource Survey database	Within 5 days of completing reviews

Task 9. Meeting Support – Field Demonstration and Presentation

The contractor shall provide support for the Water Resources Research Institute (WRRI) annual meeting that will focus on the San Juan Watershed Success and Challenges. This support shall include: participation in planning meetings; develop and deliver a field demonstration of the water quality and sediment sampling techniques to meeting participants, prepare and deliver a presentation on the San Juan Watershed monitoring program at the meeting. In addition, the contractor shall be available to discuss the San Juan Watershed sampling program during a technical exchange meeting with the states and tribes. This technical exchange will occur the day before the annual WRRI meeting held in Farmington, NM in June.

Deliverables and Schedule under Task 9:

Task	Deliverable	Due
9	Field demonstration of water quality and sampling techniques	June 2019
9	Presentation on San Juan Watershed monitoring program	June 2019

TRAVEL

This section provides a summary of the travel requirements described in Section V. Assume each field crew contains 2 members. Here are assumptions to use in costing:

Task V.3 (Training) –

- All key personnel and crew members attend an EPA training prior to starting field sampling. (Actual training selected after award may differ from those used in this costing.)

Task V.7 (Sampling) – for every site,

- One field crew of 2 to 4 members travel to the site dependent upon sampling activity (e.g. ~~fish-tissue~~ benthic macroinvertebrate and physical habitat sampling will require more than a 2- member crew).
- Total of 39 site visits for each of the hydrological periods with the exception of 15 site visits for the storm event period identified in Table 2.
- Travel costs are minimized to the extent possible (e.g., combining nearby sites into one trip).

Task V.9 (Meeting Support) –

- One team member will travel to Farmington, NM

VI. Quality Assurance Surveillance Plan (QASP)

EPA will judge performance using the following Quality Assurance Surveillance Plan (QASP).

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
Management and Communications: The Contractor shall maintain contact with the EPA TOCOR throughout the performance of the task order and shall immediately bring potential problems to the attention of the EPA TOCOR. In cases where issues have a	Any issue adversely impacting project schedules, cost, time or quality shall be brought to the attention of the EPA TOCOR: i) If the contractor requires EPA guidance during a sampling event, the contractor must contact EPA prior to	EPA TOCOR will identify unreported issues.	Four or more incidents where the contractor: <ul style="list-style-type: none">• Does not provide timely notification;or• Created a severe adverse situation will be considered unsatisfactory performance and will be reported as such in the CPARS Performance Evaluation System under

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
direct impact on field sampling activities, project schedules (i.e., not each sampling event), cost, time, or quality, the contractor shall provide options for EPA's consideration on resolving the issues or mitigating their impacts.	<p>completing the sampling activities.</p> <p>ii) If the contractor identifies an issue that could affect multiple crews, the contractor shall contact EPA that day so that direction can be provided to all crews in the field.</p> <p>iii) If the contractor identifies sampling issues that are otherwise not urgent, the contractor shall contact EPA within 5 working days.</p>		<p>the category of Management.</p> <p>Fewer than four incidents where the contractor does not meet the measureable performance standard will be considered acceptable performance and will be reported as such in the CPARS Performance Evaluation System under the category of Management.</p>
<p>Completeness:</p> <p>Samples, site evaluation spreadsheets, tracking forms and completed field sampling data forms shall be delivered in accordance with the requirements of the QAPP</p>	<p>100% of the samples shall be transmitted in accordance with the QAPP protocols for shipping. Excessive breakage or spoilage will count as a failure of sample delivery, if breakage/spoilage is a result of failing to follow the QAPP protocols for shipping.</p> <p>No more than 10% of the spreadsheets and field sampling forms shall be</p>	<p>100% of the lab delivery reports, spreadsheets, and field forms will be reviewed by the EPA TOCOR at the end of each hydrologic sampling to compare actual delivery dates against the requirements in the QAPP and long-term monitoring plan.</p>	<p>10 or more incidents where the contractor does not meet the measureable performance will be considered unsatisfactory performance and will be reported as such in the CPARS Performance Evaluation System under the category of Schedule.</p> <p>Fewer than ten incidents where the contractor does not meet the measureable performance standard will be considered acceptable performance</p>

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
	submitted more than 5 working days past the requirements in the long-term monitoring plan. If the field form or spreadsheet has not been completed correctly, it will be considered a failure of completeness.		and will be reported as such in the CPARS Performance Evaluation System.
<p>Cost Management and Control:</p> <p>The Contractor shall monitor, track, and accurately report cost and fee expenditures to EPA through progress reports and approved special reporting requirements. The Contractor shall assign appropriately leveled and skilled personnel to all tasks, practice and encourage time management, and ensure accurate and appropriate cost control.</p>	The contractor shall manage costs to the level of approved ceiling on the task order. The contractor shall notify the TOCOR, PO and CO when 75% of the approved funding ceiling for the task order is reached.	The TOCOR will compare actual versus projected expenditures on a monthly basis (via meetings, monthly progress reports & milestones established for each deliverable).	<p>Unsatisfactory rating under the category of Cost Control in CPARS when the contractor does not meet the measurable performance standards.</p> <p>An acceptable rating will be reported in the CPARS Performance Evaluation System under the category of Cost Control if the contractor meets the measureable performance standards and accurately reports the costs.</p>
<p>Technical Effort:</p> <p>The Contractor shall assign appropriately leveled and skilled personnel to all tasks; and abide by</p>	No more than 25% of reviewed deliverables and data shall require revisions to meet the requirements.	100% of the data and staffing will be reviewed by the EPA TOCOR to identify	Unsatisfactory rating under the category of Quality in CPARS when the contractor does not meet the measurable performance standards

Performance Requirement	Measureable Performance Standards	Surveillance Method	Incentives/Disincentives
the contractor's QMP, long-term monitoring plan, and QAPP.	All of the assigned staff must meet the requirements in the long-term monitoring plan, and QAPP.	noncompliance issues.	during an applicable period of performance.